

THE GREAT SURVIVAL BOOK — OF — FORAGING WILD EDIBLE PLANTS



THE SIMPLE 7 STEP FORAGERS GUIDE
to Identifying, Harvesting, and Preparing Edible
Wild Plants & Herbs

The Great Survival Book of Foraging Wild Edible Plants

Small Footprint Press

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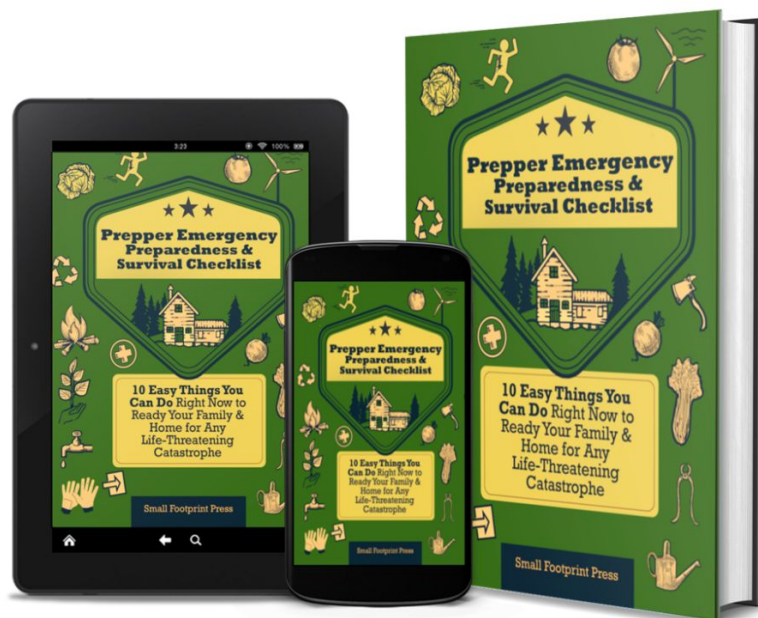
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- **How to make your own pickled goods:** enjoy the tanginess straight from your kitchen
- Detailed illustrations and directions so you won't feel lost in the preservation process
- The health benefits of dehydrating your food and how fermentation can be **the key to a self-sufficient life**
- **The secrets to living a processed-free life** and saving Mother Earth all at the same time

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CONTENTS

[Introduction](#)

[About The Author](#)

[Chapter One: Foraging 101](#)

[Chapter Two: Safety First](#)

[Chapter Three: Identifying Edible Species Of Wild Herbs](#)

[Chapter Four: Asparagus](#)

[Chapter Five: Blackberry](#)

[Chapter Six: Blueberry](#)

[Chapter Seven: Burdock](#)

[Chapter Eight: Cattail](#)

[Chapter Nine: Chickweed](#)

[Chapter Ten: Chicory](#)

[Chapter Eleven: Dandelion](#)

[Chapter Twelve: Field Mustard](#)

[Chapter Thirteen: Jerusalem Artichoke](#)

[Chapter Fourteen: Lamb's Quarters](#)

[Chapter Fifteen: Milkweed](#)

[Chapter Sixteen: Miner's Lettuce](#)

[Chapter Seventeen: Nipplewort](#)

[Chapter Eighteen: Plantain](#)

[Chapter Nineteen: Purslane](#)

[Chapter Twenty: Red Clover](#)

[Chapter Twenty-One: Sheep Sorrel](#)

[Chapter Twenty-Two: Stinging Nettle](#)

[Chapter Twenty-Three: Sumac](#)

[Chapter Twenty-Four: Sunflower](#)

[Chapter Twenty-Five: Thistle](#)

[Chapter Twenty-Six: Violet](#)

[Chapter Twenty-Seven: Wild Garlic](#)

[Chapter Twenty-Eight: Wild Ginger](#)

[Chapter Twenty-Nine: Wild Grape](#)

[Chapter Thirty: Wild Mint](#)

[Chapter Thirty-One: Wild Onion](#)

[Chapter Thirty-Two: Wild Rose](#)

[Chapter Thirty-Three: Wild Sarsaparilla](#)

[Chapter Thirty-Four: Wild Strawberry](#)

[Chapter Thirty-Five: Wood Sorrel](#)

[Chapter Thirty-Six: Sustainable Storage Methods
For Long-Term Use Of Herbs](#)

[Conclusion: Forage Risk-Free For Edible Species
Of Herbs, Sustainably](#)

[Glossary Of Terms](#)

[References And Additional Reading](#)

INTRODUCTION

“As dreams are the healing songs from the wilderness of our unconscious - So wild animals, wild plants, wild landscapes are the healing dreams from the deep singing mind of the earth.”

– Dale Pendell

The adage, “Knowledge without practice is useless; practice without knowledge is dangerous,” should be the motto for anyone entering the world of foraging wild plants for the first time. While the rewards of harvesting your own wild culinary and medicinal plants are enormous, there are very clear risks if you misidentify, mishandle, or misuse wild herbs. This is most true if a person relies on sources of information that are unverified.

One nature novice, eager to learn about herbs and experience using them first hand, read a blog post that indicated that thistle root was edible. The author talked about how he peeled and fried the thistle roots and how it tasted much like parsnip. Believing the information was reliable, the would-be harvester dug up a few thistles growing along the nearby roadside.

He cleaned and scrubbed the first few roots, but found them too small to peel. Then, he fried them in a little butter, as the blog writer had suggested. They were inedible—so tough that he couldn’t chew them at all.

“Perhaps,” he thought, “I should boil them first.”

He boiled several roots, attempting to pierce them with a fork throughout the process. After forty minutes, the roots were no softer. He removed them and fried them again, just like the first batch. Every root had the consistency of tree bark. The taste was nothing like parsnips. They tasted like buttered cardboard.

There were myriad problems with this blind approach to eating wild-harvested plants. First, the article did not state which type of thistle to harvest. There were four species growing in the area. Second, he harvested the thistles in mid-summer, long after tender new plants had toughened. Third, the author of the post had no credible background in wild harvesting.

In North America, there are over 5,000 edible plants, according to various sources. But here, again, the internet is rife with conflicting data, some sites suggesting 25-50,000 edible species, others as few as 4,000. Worldwide, estimates suggest that there are 350,000 plant species, with anywhere between 20,000 and 80,000 being edible.

But what is edible? Some lichens may be edible, but hardly palatable. Some plants are not edible but have medicinal properties, such as members of the Salicaceae family (willow and poplar), whose inner bark contains a natural painkiller.

There are several dozen commonly consumed and used herbs in the western world, easily identified, harvested, and prepared. Some are so common that you may tread on them every day. A few are less common. A small number are on the endangered or near-endangered species list. Some have harmless look-alikes, others deadly cousins.

Here is where “practice without knowledge” is dangerous. But here, too, is where “wild plants ...are the healing dreams from the deep singing mind of the earth.” With knowledge about identifying, harvesting, and preparing the herbs that you gathered in the wilderness, the experience becomes deeply gratifying and beneficial to your health, your pocketbook, and your general wellbeing.

Fortunately, learning about wild harvesting is a hands-on experience. You may start with just a few of the most common plants and, as you become comfortable with the experience, expand your arsenal of wild, healthy eating resources.

Did you know that wild fresh food can have over five times the nutrients that food in the store usually has? The further you venture into the wilderness to harvest, the more pristine your harvested foods will be, with fewer chemicals invading the habitat. Wild herbs “know” the best places to grow for their particular species, and produce more of the nutrients and essential oils, without artificial fertilizers, than similar plants in controlled commercial operations.

If you are a new wildcrafter, you may be nervous about venturing into this unfamiliar environment, worried that you might pick the wrong plant, unsure if you have the right herb or a poisonous look-alike. You may be concerned that the plants that you are harvesting are on an endangered list. Perhaps you worry if the plant actually provides the benefits that it is supposed to.

You may doubt that you will find the plants in the jumble of forest or meadow. Pickers that have never picked morel mushrooms may look for hours before they find the first morel and then, magically, dozens more may appear as soon as they identify the first one. If you are an inexperienced outdoors person, it may be easy to wander off a known route and get lost as you immerse yourself in picking.

These doubts and fears are normal for newcomers to harvesting food in the wild. This book will guide you, step-by-step, through identifying the habitat and range of various edible plants, look-alikes, and when to harvest.

The benefits of foraging extend beyond the nutritional, culinary, or medicinal benefits of the herbs you collect. Science has proven that nature is an excellent medicine for depression, stress, and lethargy. Spend time regularly outdoors and you will feel more energized and invigorated by fresh, unpolluted air.

Your wallet is healthier, as you save money that you would otherwise spend on forced-grown produce, often laden with chemicals, heavy metals, and toxins.

As you harvest your own wild food, you will find each step becomes easier until it is an absolute joy to know, finally, what you eat, where to find the best and freshest herbs every day, how to prepare the most nutritious meals from wild plants, and how to take control of your food budget without depending on lower-quality goods available from commercial growers.

Subsequent chapters reveal how and where to forage, safety measures to follow when identifying, picking, and handling your new foods, good conservation practices, and meals and medicinal remedies you can prepare with your fresh food basket.

Our guide provides you with easy-to-follow steps on your journey. The acronym, **F.R.E.S.H.S.** should help you remember each one, chapter by chapter.

F: **F**oraging, why forage, tools for foraging, and foraging guidelines.

R: **R**isk-free safety guidelines when foraging and handling wild herbs.

ESH: **E**dible **S**pecies of wild **H**erbs, available virtually in your backyard.

S: **S**ustainably harvesting and **S**toring your herbs.

There is no food like FRESH food, and no better way to improve your diet and your health than foraging!

ABOUT THE AUTHOR

Who is Small Footprint Press?

Small Footprint Press, established amidst the pandemic, is a self-publishing company of experts that aims to promote sustainable survival—equipping you to live a sustainable, conscious, and independent lifestyle to make the world a better place for yourself and future generations to come.

As the world progresses, we believe that the importance of sustainable survival becomes more and more evident. Our planet faces various challenges, including climate change, dwindling resources, population growth, and pandemics. To secure a bright future for our children, *now* is the time we must take steps toward saving our planet.

We accomplish this by simply empowering you to prepare for potential disasters for yourself and your loved ones. Gone are the days when you stress about the day of the unknown!

Our books are a collaboration of different authors, each with their perspective and expertise. This makes for a well-rounded book that covers various topics in-depth, ensuring the highest quality standards. It also makes for a more engaging read, as each author brings their style to the table.

Similarly, orchestras are made up of different instruments, each with its unique sound and purpose. Once these instruments play as one in harmony, the result is extraordinary.

We believe that one way to bridge a community of people with a shared purpose and values is through books! In this community, you build genuine relationships, share similar experiences, and are empowered to take action.

You are not alone. There's something special about a journey taken with others. Whether exploring a new city or embarking on a long hike, sharing the experience with others makes you enjoy the journey more than the destination.

So allow us to join you in your journey to a compelling life of sustainable survival!

Interested in joining our cause? Download your FREE resources at the beginning of the book!

CHAPTER ONE:

FORAGING 101

A fable written by Lucy Sprague Mitchell in 1948 told the tale of a little engine that was eager to get out on the tracks and begin traveling, but its mother kept telling him, “Steady, steady, ‘til you’re ready. Learn to know before you go.” It was the essence of being prepared. It is possibly the most appropriate lesson as you prepare to forage in the wild for plants. Learn to know, before you go out into the woods.

There are lots of reasons why you should research, read about, and practice foraging for wild herbs with an experienced wildcrafter before you even consider striking out on your own. But you should also be asking yourself, “Am I ready?” “What do I still need to know?” “Why is it that I want to forage?”

Before you began your working life, you went through a number of tests and lessons in school that helped prepare you for the outside world of business. Now, you are contemplating a venture into the true outside world of nature. It has been waiting for you, and others, forever, but most of us have turned away from the bounty that it offers and have lost the knowledge that we need to enjoy its cornucopia. Prior to heading out, you need to make sure you are ready.

EXERCISE ONE: ARE YOU READY FOR FORAGING?

Take the time to answer the following questions to see how prepared you may be, and how much work you may still need to do, to become ready, capable, and even proficient at harvesting wild plants. We have offered a few guidelines to accompany each question, so you may further assess your readiness.

A. PERSONAL PHYSICAL READINESS

Foraging can test your stamina. It is more than just the trek into the wilds. Bending to pick or dig, wending your way through the underbrush, slogging through sloughs, and battling insects, all can test your physical and mental endurance. Many indigenous people of North America still dig Seneca root, which they sell to pharmaceutical manufacturers. It involves up to fourteen hours per day, bending, digging, and breaking clumps of mud. They toil in the hot sun, battle rain, and fight off mosquito hordes. They suffer.

Ask yourself, how much effort am I willing to expend? Then plan your day in the fields accordingly. Limit your hours of picking and the conditions under which you toil.

Questions: How good is your health? What sort of limits will you impose on all of your foraging excursions?

B. MOTIVATION

The idea of picking your own foods has a romantic appeal. It also likely has a practical appeal. Wild foods have a long history of use, medicinally and nutritionally. However, the convenience and the ability to get clean, unblemished, nicely packaged commercial foods at your nearby grocery also has appeal, since it is easier, faster, and the grocer's products are very familiar.

Perhaps you want to save money on medicinal herbs to replace expensive pharmaceuticals and culinary plants to supplant bought produce. Maybe you want to try some heritage recipes, using the ingredients that the pioneers used in the wild. Do you want to break away from relying on store-bought goods? Maybe you are just looking for a hobby and love the idea of spending more time outdoors.

Questions: What are your reasons for foraging? Are you looking for healthier options? Are you looking for creative cooking ideas or alternative medicines? Is this a hobby, combining exercise and healthy eating?

C. FINANCIAL & TIME CONSTRAINTS

Foraging is cheap. No huge growing conglomerate controls what you pick, and no retailer sets a price on the free food you gather. Foraging is healthy, with wild foods having few or none of the chemicals introduced to commercially grown crops and far more of the natural nutrients. Foraging is an experience, as you seek out, identify, verify, and pick your desired plants, instead of selecting the prettiest package of veggies in the produce aisle. Although, foraging is time-consuming. A fifteen-minute trip to the corner store may become a day-long trek into the wilderness.

Questions: Are you looking for ways to become more self-sufficient? Are you looking to eat with less expense? Are you looking to replace health supplements with free natural remedies? Do you have the time to set aside weekly, daily, or monthly to forage (and how much time)?

D. ACCESS TO THE WILDERNESS

A well-worn adage claims that golf is a 'good walk, spoiled.' Foraging is actually a great way to break up a good wilderness hike and embrace nature. Some of us are ill-suited to being in nature. We may have allergies, be uncertain about insects and predators, be reluctant to venture into unknown or unfamiliar areas. If so, we may want to rethink the idea of foraging. If, however, you like the outdoors, love hiking, enjoy exercise, understand and embrace nature, foraging is likely for you.

Many urban dwellers do not have access to rural spaces where foraging is safe and productive. Many areas may have an abundance of the plants you want, but they are growing in unsafe or polluted ground. Some areas may have the herbs you want, but they are in limited supply in those places. Many spots may be difficult to access. Ask yourself the following questions to see, not if you are ready for the wilderness, but if the wilderness and you are ready for each other.

Questions: Do you like hiking and have the necessary gear for it? Do you have an area already in mind for your excursion? Do you have the resources to be able to identify where to find your plants and know you have the right to access them?

E. YOUR COHORTS

Never pick alone. It is like swimming by yourself; it may not be safe, regardless of how experienced you may be. You may be quite capable of surviving on your own, but injuries can occur, particularly in regions where there are venomous or predatory animals. Even the most experienced trekkers can get lost. Maybe the risk is low, but hiking and picking with a cohort—friend or family—is advisable. It also is a great opportunity for bonding and is a wonderful way for your children to learn about wild harvests.

Questions: Can you involve your family in foraging? Do you have friends who will spend the time foraging with you? Does their schedule fit your timetable?

We introduced you to the concept of F.R.E.S.H.S. in foraging earlier. This chapter examines the practice of **F**oraging, or wildcrafting. We will explore the nutritional difference between foraged and cultivated plants, the reasons why you should forage, the where and how to forage, mindful foraging guidelines, and essential foraging tools.

WHAT IS WILD FOOD?

Wild food traditionally has included fish, game, some minerals, and plants. However, for the vegetarian and most pickers, wild food is completely herbal—edible plants.

The term “plants” is used in the botanical sense, referring to any of the flora in the region. It includes berries, fruits, vegetables, and leafy plants. The emphasis in this book is on edible plants. Worldwide, the number of edible plants may exceed 50,000, but usually is calculated at ten percent of the more than 350,000 plants in total. That also includes more than 2,000 edible mushrooms alone!

There is some confusion in the world of the wild harvester as to what the difference between “herbs” and “plants” may be. Some purists insist that an herb is any plant that does not have a stem and that dies down to the ground each season. Yet, that would exclude most tropical herbs, shrubs that produce berries or have usable bark (poplar and willow) or sap, cinnamon, teas, and a myriad other plants that are grouped into culinary or medicinal herb categories.

In this book, we may refer to some species as herbs, simply because that is what they are known as by many people, but we will largely adhere to referring to the thirty-two flora on which we focus as “edible plants.”

NUTRITIONAL DIFFERENCES BETWEEN WILD AND CULTIVATED PLANTS

Wild foods are packed with more nutrients than their cultivated counterparts. In the wild, plants grow in conditions according to their needs. This difference in garden plants is partly the result of cultivation, focusing on taste over quality when domestic plants are bred and developed, with the desire to have a plant that produces quickly and with a greater output of edible parts. Gardeners and botanists often hybridize cultivated plants and modify them to increase production and speed up the growing process. These genetic adaptations result in a plant that does not have to be as hardy as a wild plant, losing many of the defense mechanisms that are inherent in the nutrient density of the wild counterpart.

For example, wild bitter herbs are much more powerful than cultivated versions, since they must deal with predators (insects and animals) that would eradicate them if not for a strong and bitter taste to deter pests. Plants growing in marginal soils need to store essential oils to survive seasons of deprivation and cold winters, while domestic versions are protected and often more tender.

This need to “be tougher” extends throughout the wild kingdom, from plants to insects to large animals. And tough means more of the nutrients and beneficial elements packed into a leaner survivor of the wild.

Because of the more intense qualities of wild crops, they also possess the adaptability needed to survive. They may have poisonous look-alikes, or bristles, thorns, irritants, and spears to hurt you. They may grow among other plants, like the poison trinity of oak, ivy, and sumac, or wind closely with other plants and roots to make them difficult to pick or dislodge, like wild ginger.

Hardy plants also tend to be scarcer and at risk of becoming endangered, as civilization, pollution, and climate change encroach. Be careful, not just for your own safety, but for the safety and survival of the plants themselves. Pick only what you need, for the shortest possible duration. A good guide is to pick no more than one-fifth of the available plants if abundant and one-tenth if they are more scarce.

Because you are foraging in areas that are new to you and for plants that you likely have not consumed recently, you are adding diversity to your diet. However, simply by wildcrafting, you are capitalizing on the greater diversity of nutrients and phytochemicals that wild plants contain. Nutritional diversity is very important for your overall health. This is because different foods have different macro- and micronutrients that the body's tissues need.

Cultivated plants exist in soils that are amended with fertilizers and synthetic chemicals, while wild plants draw on the natural soil and water reserves that have not been altered intentionally. This foundation contains more of the minerals needed for the growth of that specific plant. However, as air pollution increases, even the atmosphere contains chemicals that infiltrate into the wild, while runoff and rain often leaches heavy metals and chemicals from polluting industries and pushes them into the waterways.

Knowing where you are harvesting, therefore, is important, to avoid those harmful pollutants and to maximize the likelihood of picking pure, healthy, and nutrition-packed plants.

All reputable food guides recommend diet diversity. In the same way that a healthy immune system requires antibodies that combat a diverse range of viruses, bacteria, and illnesses, a diverse diet helps to create an adaptable, flexible, and strong body and mind. One of the reasons for the success of recognized diets like the Mediterranean diet is its emphasis on diversity, as well as nutrient-packed foods.

Of all the components of a healthy diet, as specified by the Mediterranean diet and the DASH (Dietary Approaches to Stop Hypertension) diet, and by the various food guides issued by countries around the world, plant-based foods top the lists.

The Nordic Council of Ministers claims that “observed health effects associated with vegetable, fruit, berry, and whole grain consumption can likely be explained by the combined action of many different phytochemicals and other nutrients” (Nordic Nutrition Recommendations 2012. Copenhagen: Nordic Council of Ministers).

Healthy diets today are more than the meat, starch, and vegetable basics of the 1950s. Protein, fatty acids, vitamins, and minerals form the basis of our needs, but our ever-expanding knowledge of the requirements that our bodies and minds have for healthy maintenance and growth continues to reveal new essential elements that interact with others to keep us alive.

WHY FORAGE?

Foraging is the super exercise of nature lovers. It provides immense benefits for your physical health, your dietary needs, mental health, intellectual growth, emotional wellbeing, and desire to explore new areas and gain new experiences—and it is very economical!

Foraging requires energy and physical endurance. There is a lot of bending, carrying, climbing, trekking, and exploring involved in this daytime adventure. Without realizing it, you may get the entire recommended quota of calisthenics or the steps that your Fitbit or fitness app urges you to get while you are out and about hunting. It is good for the heart, the lungs, the muscles, the joints, and the brain.

Of course, the gathering of food means you are taking care of your dietary needs, but on top of that, most mental health experts acknowledge and encourage the experience of visiting nature as a superb natural stress reliever. It has been shown, countless times, to help recharge your energy, both physical and mental. Unfortunately, many people today prefer to lock themselves indoors, and miss the healthy experience of being in nature.

As you forage, you learn. Yes, reading books can tell you what to expect, what to look for, but actual experience has always been the best teacher. You may be intent on learning about the plants that you are harvesting but, quite incidentally, you also will harvest a wealth of information about the rest of nature, its interactions, its survival mechanisms, and your role in protecting this wonderful world. It is mind-expanding. More so, even, than watching the best documentary about the wilderness because it is your personal experience that sustains this new knowledge.

More rewarding than being on a tropical holiday, an excursion into nature to forage brings great emotional satisfaction. It is your alone time with the world around you with no commercial intrusions. Your

senses, as you trek, are heightened while you become more aware of all the activity and beauty you come into contact with.

As you explore, you will embrace the irresistible experience of needing to know more while more of the natural world surrounds you. Gaining new experiences may become as much a focal point as the foraging itself. All of this occurs in your own figurative backyard, with almost no cost. You may find yourself lost and immersed in this world, living only in the present moment.

WHERE TO FORAGE

Think of foraging as a scavenger hunt in the wilderness. You have specific plants in mind, but it is the joy of searching for them that provides the drive for your foraging practice.

One caution to consider: do not forage in urban areas! Pollutants that can invade your plants are everywhere, from the bug spray to pesticides used in nearby areas, from airborne industrial pollutants and vehicle exhausts to waterborne toxins and heavy metals in streams, ditches, and even in local acid rain.

You want to find pristine environments as much as possible. Unfortunately, some of your most powerful plants grow in wastelands, whether it is natural or manmade. Rural and woodside paths and hiking trails are generally much safer than urban locales, but they carry toxins that are borne on the footwear of hikers using the trails.

Even if you wash plants harvested in polluted environments, you will only cleanse away the surface toxins, not the chemicals and heavy metals that have become systemic in the plant.

The best places to forage are those that are most untouched and natural, such as woodlands and forests, meadows, and fields left fallow or uncultivated.

Many landowners and farmers would love to know that their property offers a bounty for wildcrafters like yourself, but it is vital that you get their permission. At the same time, inquire about their fertilizing and pest management habits so you know how safe your visit will be.

Golf courses and managed recreation areas often allow foraging and hiking, but be aware that golf courses have some of the highest uses of chemicals on their fairways, greens, and hazards. These likely get windblown into adjacent meadows and woods.

Public parks mostly do not prohibit picking, but be aware of their regulations. Always get permission, regardless of where you harvest. Check with park management, both upon arrival and departure. Developing a good relationship with the owners of favorite harvesting locations means you will be more welcome on your next visit.

Some foragers pay for the right to harvest in a particular location. This may cost a little more, but it guarantees that you know the quality of your crops and are able to maintain a reliable source, year after year.

One of the most productive sites to forage along is a waterway. These routes offer great diversity, as they may traverse forest and meadow, run through numerous states, be in sunlight or shade, and have their own varied ecosystems along their length. Soil variety and moisture diversity make for a wide array of different edible plants in ideal growing conditions.

There is one major problem for foragers who travel across the United States. From state to state, rules about riparian versus agrarian water rights differ, which makes knowing whether you have the ability to traverse these water routes difficult. Does the landowner own the water rights or is it in the public domain? Are you trespassing?

Plots of old western movies often revolved around a selfish or vengeful upstream owner shutting off the access to a vital stream for the farmer below. Most of the West has agrarian land rights, meaning that “shutting off the tap” is legal, as is denying access to people who want to use the stream to canoe.

In the eastern parts of the United States and Canada, riparian rights mean that the public can access the river and a certain right-of-way on its shore. In that instance, it is the state, province, or federal government that restricts or allows access and the privilege of harvesting along the shores of the waterway.

MINDFUL FORAGING GUIDELINES

Mindful foraging is self-explanatory, but takes time to become part of your conscious process. Be aware of how you forage, what you forage, where and when you forage, and what your responsibilities may be.

When you visit nature, you are experiencing an act of mindfulness and connection. But what the Earth gives to you, you should give back in some manner. Be sure to compost and recycle, be sure to use environmentally friendly practices, not just on your harvesting trip but in general.

The Earth's resources are limited. A once plentiful fish, Cod, is now only slowly recovering from its devastating over-harvesting history. Many prairie grasses and flowers are now extinct or almost so, as cultivated crops surge into their territory. The rainforests of the Amazon are also under extreme stress.

The saying, "leave no trace," is the perfect way to view your duties owed to nature as you enjoy her bounty.

Every summer, elders would join younger members of First Nations communities as they harvested, first Seneca root, then later in summer, wild rice. They joined the youth not because they loved the back-breaking work involved in these two harvests, but to teach the younger people their duty to the land.

Each plant has a season. During the flowering season, harvesting those plants would diminish the ability of that species to reproduce.

Elders would show students how to dig only the largest Seneca roots, leaving the younger plants to flower and produce seeds. In the fall, the crew might return to dig those roots that had the highest concentration of essential oils that the pharmaceutical company buyers wanted. But in all cases, they made sure that young proteges only took a tenth of the plants throughout the two digging seasons,

so that the roots had several years to mature and several generations of seed to germinate.

Likewise, they only harvested a portion of the wild rice growing in the swamps and waterways, beating the grains into their canoes part-way through the period of ripening. In this way, immature seeds would continue to ripen after the team had departed, falling into the mud to reproduce. The indigenous tribes took only what they could use.

This mindfulness is at the core of most First Nations' spiritual beliefs. They are stewards of and have responsibility for the natural world around them.

There are plants that may be edible but are now endangered or near endangered. Across the Midwest, certain types of lady slippers are protected, yet they look very similar to other, unprotected varieties. If you are uncertain of the plant's status, don't harvest it. Ladyslipper's medicinal properties are tricky to make use of safely, and should be left alone regardless.

Leave no trace: no garbage, no damaged areas, no record of you being there. Correctly identify plants so that you do not later discover your error and discard them, when they could have been left to flourish.

Create a symbiotic relationship with nature and be grateful for its bounty.

Foraging Tools

The following is a list of tools that you will need when foraging:

1) *Pruners*: These shears are useful for woody stems and thicker stalks. Purchase good quality pruners with stay-sharp edges and grips that fit your hand comfortably, both when they are open and when they are closed.

2) *Hunting knife*: Some foragers swear they need a specific large blade knife. However, a durable hunting knife with a serrated edge for sawing is adequate. Make sure you have a good, safe sheath in which to contain it.

3) *Small digging fork (army style)*: Used to dig out intertwined roots (optional).

4) *Small, cut-off shovel (army style, not emergency camping quality)*: Needed only if you are harvesting roots.

5) *Kitchen scissors*: Vital for clipping leaves and stems without causing any damage to the rest of the plant.

6) *Vegetable brush*: For cleaning dirt and debris from harvested plant parts (optional).

7) *First aid and survival kit*: Always carry a basic first aid kit when in the wild, regardless of whether or not you are foraging.

8) *Cell phone with compass app*: Needed if you are in cell phone range, a compass and whistle are also helpful.

9) *Field guide*: Either a phone app or a paperback version to verify the identity of the plants that you are harvesting.

10) *Small hand magnifying glass*: To examine smaller leaves and markings you may find on plants (optional).

11) *Cloth bags*: To carry foraged items.

12) *Bug repellent*: Use environmentally friendly repellent. Ants and flying insects can be a problem, but we still want to 'leave no trace' in our foraging environments.

13) *Garden gloves*: Essential to prevent stings from insects, nettles, thorns, and nearby poisonous plants.

14) *Water*: Always have water with you, or at minimum, the chemical treatment for creek water, if you know there is a safe stream near where you are harvesting.

15) *A plan*: Tell others where you are going and when you will return.

CHAPTER TWO:

SAFETY FIRST

The American Association of Poison Control Centers reports that between 5,000 to 8,000 people are poisoned each year in the United States by mushrooms and plants, with eight to 18 deaths. But these statistics are at the low end of the scale as many incidents are not even reported or are misidentified. The majority of cases occur because the plants are misidentified or mistaken as being safe.

The movie *Into the Wild* chronicles the death of Chris McCandless, who died after eating wild potato seeds. He had no idea that the food was toxic. Thousands of people in France fall ill after eating poisonous mushrooms every year. Many of the toxic interactions with plants are not sufficiently serious to warrant medical intervention. Think of the hundreds of thousands of cases of poison ivy and poison oak across North America, or upset stomachs after drinking alcohol and eating certain mushrooms. Many plants cause contact dermatitis, yet also are edible or medicinally beneficial. Stinging nettle is a prime example.

In the past century, with all of the pollution of industry, the number of those suffering from respiratory issues such as Asthma has risen exponentially. These sensitivities compound already existing allergies, exaggerating peoples' sensitivity to plant pollens in the respiratory system and even heightening immune responses in general. More and more, allergies are arising to plant species that are generally helpful and healthy for the body.

Clearly, misidentifying and mishandling plants can cause health issues and allergic reactions. Yet some of those same plants may be vital to our health and wellbeing. For years Digitalis, a component of foxglove, was a vital heart medication, saving thousands of lives.

Codeine, from poppy plants, exists alongside opium from the same herb. Phytochemicals from plants, many from the rainforests of South America and Africa, are the basis of dozens of commercial medications and the simple remedy Aspirin owes its entire existence to salicylic acid in willow bark.

Safety when foraging extends beyond the toxicity of plants. Consuming or even handling the wrong plant or a beneficial plant in the wrong way can have catastrophic consequences. There are concerns about physical safety in the wilderness, and coming to harm while you are foraging along roadsides or in fields. Man-made and introduced chemicals pose a huge risk if caution is not exercised.

Safety concerns are significant in the handling, picking, storage, and consumption of various plants. With each plant in the subsequent chapters, we will discuss specific handling and safety issues, as warranted.

At the start of the book, we talked about how important gathering knowledge is to the wildcrafter. In the same way that a wild animal mother teaches its young about risks in the environment, you should begin your journey as a forager of wild plants under the tutelage of someone with experience.

Many settlers in Canada and the United States would have perished if they had not benefited from the teachings and directions of First Nations in these areas. For example, the entire Icelandic settlement in Manitoba would not exist today, were it not for the guidance of a native man, John Ramsay, who risked his life to make sure that the newcomers knew how to live off the land during its harsh winters.

The Lakota Nation, seen in offensive roles in cough remedy ads, actually used the very natural remedies now being promoted for coughs and colds. Tribes from Washington state guided the

explorers and surveyors, Lewis and Clark, showing them how to survive on what the land provided.

Joel, a neophyte forager, was astonished to learn that there were stinging nettle plants right in his own yard. His neighbor pointed to a couple of small immature plants along the fence, one less than eighteen inches high, the other a teenager at about two and a half feet. Eagerly, Joel reached down to grasp the taller plant, his gardening glove on his hand.

But he was wearing a tee shirt with short sleeves. As he grasped the base of the larger plant to look at it more closely, his bare arm came in contact with the smaller one. Immediately, he felt the sting and itch of the hairs on the small plant. He had read that young plants don't develop stings until they are more mature. Not knowing precisely when that was, he paid the price for disregarding safe foraging guidelines.

Relying on experience and knowledge is the best way to master your own ability to forage effectively and safely. In our acronym, F.R.E.S.H.S. we look next at the "**R**," or the concept of **R**isk-free, safe foraging. Safety is mostly common sense. We have laid out nineteen tips for you to follow to gather and consume wild herbs safely.

GENERAL GUIDELINES FOR FORAGING

There are key points to remember whenever you venture into the wild to forage:

1. When you pick a plant, first be very sure that it is the right plant. As you harvest, you may mix in each of your plants to be sorted, washed, prepared, and consumed once you return home. With some plants, just the smallest quantity of a toxic look-alike may cause severe health issues and it is extremely easy to accidentally mix a few loose leaves of a poisonous plant in with the harvest of other plants.

2. Be aware of the soil and surrounding crop farming habits. Pesticides and herbicides tend to travel with the wind, and headlands of crop fields are often laden with chemicals. If you are picking on walking trails in the bush, or along roadsides and abandoned homesteads, be sure you know if these areas have been subjected to chemical applications. Very often, rail lines and highway workers spray for insects or fast-growing weeds, rather than more sustainably handling the problem. Try to avoid picking anywhere chemicals might have been used. This is also true of creeks and streams, where pollutants may have entered the waterways further upstream.

3. Make sure you have the landowner's permission to forage on the property where you pick. Be very aware of boundaries. Some properties may be pastures for animals, some may be government-controlled preservation areas, and others may merely be property that the owner prefers to be free of any trespassers.

4. Never take more than 25 percent of the visible supply of any plant. Leave an abundance for nature to reproduce itself. This is particularly true with mushrooms or wild berries. With such a short

season for picking, there is an urge to capitalize, but the more you pick, the less opportunity there is for reproduction. Remember, too, that you are sharing the wilderness with other animals and insects who need to feed as well.

5. **Be sure that you are not picking an endangered or at-risk species.** Many plants are being squeezed out of existence in some areas, and even though they may be abundant elsewhere, are threatened. Plants like wild bergamot, small white lady slipper, Hill's slipper, and Riddell's goldenrod, found in the tall grass prairies of Montana, the Dakotas, Saskatchewan, and Manitoba are at serious risk of extinction.

6. **Be aware of wild animal risks.** You are in their home. Be safe.

7. **Be weather-aware.** Sudden changes in temperature may catch you unawares, and in some parts of the continent flash flooding can occur in hours, or even less.

8. **Be aware of your location.** Know how to find your way in and out, and leave a detailed explanation at home as to where you are going and when you will be back.

9. **Carry reserves.** Be sure you have lots of water or access to clean drinking water. There are tablets that you can use to treat creek water, but you need containers in which to do so. Have enough food and survival equipment in case you get lost or delayed.

10. **Have a safety kit.** Accidents are unpredictable. If they were not, they would not be called accidents. Later, we provide a list of survival items to bring along with you.

11. **Carry a compass if you are not in cell phone range, and carry a solar charger for your phone if you are.** Install a compass app on your phone.

12. **Be aware of your surroundings at all times.** This is self-explanatory.

13. **Carry a field guide of local plants with you.** Recognize, too, that the range of many plants has extended dramatically in recent decades, with plants found in states and provinces where they never existed a century ago. If you are in cell phone range on your trek, consider downloading and using a plant identification app with photo recognition, such as Plant Snap. However, do not rely solely on this type of application, as it is possible to misidentify species and be less accurate.

14. **Avoid plants with a strong, disagreeable odor.** Many plants have an odor to warn predators away, skunk cabbage being a prime example. Odor can be a warning for humans as well.

15. **Don't assume that if an animal eats it, it is safe for you.** Animals eat all kinds of things, would you? And many plants that we can eat, animals cannot. For instance, horsetail is poisonous to horses, but we can consume modest amounts. Most animals are not bothered by poison ivy, but most people are.

16. **"Leaves of three, let them be."** This well-known slogan for poison ivy and similar plants is self-explanatory, but many plants have similar leaf structures, and identifying which is which can take time. Be sure to focus on leaf structure, stem structure, and other subtle features of plants to really be able to identify.

17. **Raw Consumption.** Some plants, fungi and berries, like chokecherry and many mushrooms, should not be eaten raw.

18. **Potential Allergies.** Try small quantities of new plants first to make sure you are not allergic or intolerant. Like a test spot of paint, try a small test of a new food item to make sure you and your immune system find it to be agreeable.

19. **Poisonous neighbors.** When picking plants, be sure there are no poisonous ones nearby. Wear disposable or garden gloves when possible, because plant oils can spread and brush against you, even if you are not picking them

Follow these rules and you'll be safe! Read these tips over and over again until you commit them to memory.

There's no need to panic if you stick to these rules. Even when you think you know what you're doing, reconnect with humbleness and always question yourself to avoid picking the wrong herb or plant, or fruit. In this beginner-friendly book, the herbs provided are easy to recognize to get you started on your foraging journey!

GETTING STARTED WITH FORAGING

Do not rush into the world of foraging. Take time to read and learn. Join a local group and be part of their excursions before you venture out on your own. Take a course, whether in person or online. Watch nature documentaries. The more information that you have before you launch yourself into this new world of nutrition, the better your experience will be.

Remember, there really can be too much of a good thing! Never eat excessive amounts of anything, instead eat moderate amounts of wild plants or fungi. Small quantities may be safe, while large quantities may be toxic. Always be prepared. It is a famous motto, but applicable to many situations in life. In the world of foraging, it is vital to always be prepared, always be aware, always be cautious, and always keep safety at the top of your list of priorities.

CHAPTER THREE:

IDENTIFYING EDIBLE SPECIES OF WILD HERBS

How much do you know about wild herbs? What do you want to accomplish when you forage? Why do you want to harvest wild plants? Let's start with a short exercise for you to see where you are currently.

Questions:

1. Have you ever picked wild food?
2. Do you have prior knowledge of the quality and appearance of herbs?
3. Are you aware of their medicinal and culinary uses?
4. Do you have the time to learn about edible wild plants before you begin harvesting?
5. How much time, per week, do you normally spend outdoors and in nature?
6. Are you looking for a hobby that is healthy?
7. Do you want to become less reliant on commercial products?
8. Is your primary goal to eat healthier or discover medicinal uses for herbs?
9. Do you have access to, or can you identify locations where you can harvest safely?
10. Do you have a source or person who can assist you as you learn how to forage?
11. Do you have storage facilities for your edible plants?

Prior knowledge of the appearance of wild plants and an understanding of their value for cooking, nutrition, and medicinal qualities is beneficial. If you have picked and chewed on a dandelion leaf, sucked on a sorrel leaf when you were thirsty, or applied a plantain leaf to a cut or insect bite, you can appreciate the magical powers of wild herbs.

You might want to start small in your search for wild, natural foods. Plantain at the edge of your garden, nettle along the fence line of your property, purslane in your garden, or clover sprouting in your unfertilized lawn might be a good start.

Take the time to read books on wild plants, including the amazing mushroom family. Watch online or television documentaries on wild plants. Listen to opposing views about eating wild plants, so you will know that there are some risks associated with this new hobby.

While there is a wealth of anecdotal data regarding the benefits of eating wild foods, there are also those that claim that the benefits have not been scientifically proven. This may be true, but centuries of lore and practices provide a strong indication of the benefits of eating wild plants. Across continents, the practices of foraging and wild food are remarkably similar over hundreds of years of history. While we wait for science and the pharmaceutical industry to catch up with the knowledge of generations, we can assume that the plants are safe and likely to be beneficial as claimed.

If you don't spend much time outdoors, proceed slowly. Familiarize yourself with the concept of interacting with nature passively, then begin your active journey into gathering your food.

We are examining "E.S.H" in this chapter. You will be introduced to the anatomy of plants, and techniques to use that anatomy to identify "**E**dlible **S**pecies of **H**erbs."

Consider your new food project both an opportunity to exercise and as a healthy hobby. It should not be looked upon as a task or

tedious chore.

A desire for independence from commercial, contaminated, and chemically treated products has led millions of people to healthier eating, even if many are not foraging for their own food. Some may be turning to organic and free range growers, others to farmers markets to buy freshly picked wild herbs, or maybe picking their own to achieve greater independence.

Wild herbs are healthier than domestically grown ones and provide superior medicinal benefits. If this is your goal, it is one of the best reasons to harvest in the wild. But you need to identify the best areas to harvest, and you need to treat those sites with respect.

Work with a friend or someone with herbal knowledge at first. Then encourage family and friends to join you.

If you have been able to answer all of these questions positively, you are ready to begin your trek into the wild!

SEASONS AND TIMINGS OF PLANT HARVEST

Every herb has its season for harvesting, and each season varies with the region of the country in which you reside. Identifying those timelines will increase the likelihood of your success when foraging. Knowing when to go is as important as knowing where to go.

Plants whose leaves are the primary part harvested will often be ready within four to six weeks of sprouting in the spring, but some plants germinate or rouse from dormancy later than others. Seeds often are harvested in the late summer and fall, but some plants grow quicker than others. Root crops are harvested in the spring or late autumn, when the essential oils and nutrients are still concentrated in those parts of the plant. Fruit may be ready early to mid-summer.

We have included the prime harvest seasons for each plant we describe in subsequent chapters.

STEPS TO IDENTIFY PLANTS

Know plants' habitats. Each of the 32 chapters on herbs in this guide describes the regions in which they grow and the type of conditions in which they can be found.

Once you have located the habitat, range, and season of a plant, you will identify the physical characteristics of that plant: flower anatomy, leaf shape, stem, growing habits, and even root style.

Here is where a field guide book or identification app on your phone is invaluable. One such application is Plant Snap. Take a picture of the plant, and the app automatically identifies its most likely species and family. Neither book nor application are foolproof, but they could save you from misidentifying and possibly encountering a poisonous look-alike.

PLANT ANATOMY

Almost all plants have basic parts that, although varied in appearance, make up the entirety of the plant. Plants in the same family will have similar certain parts that will help you in their identification.

These parts are the root, stem, leaves, and flowers. As the plant matures, flowers may become fruits, some having seeds contained, while others simply produce seeds or spores.

Identification of plants involves knowing root type (tuber, rhizome, tap, etc.), stem type (square, round, ribbed, etc.), leaf shape (oval, tapered, serrated, etc.), flower description (cross, bell, funnel, etc.), and fruit or seed description (cone, tubular, spore, etc.). There are diverse ways that a plant may propagate, including rhizomes, runners, seeds, or spores. The way a plant reproduces has been a classification marker for scientists organizing the botanical world. Whether a plant produces fruit, spreads by rhizome or more can be a very good way to identify to which group it belongs.

Any part of a plant in general, may be edible, but each plant has edible and non-edible parts, some toxic, some non-lethal but deterrent, and others simply unpalatable.

Many look-alikes may be harmless, while others may be irritating, toxic, or poisonous. Using the specific plant descriptions, you will need to be able to identify one from the other.

ROOTS

Primary root types in the plant world are tap, fibrous, and adventitious.

Taproots are easily identified. They are found in common vegetables like carrots, beets, turnips, and parsnips. Similar root-heavy wild plants would be wild carrot, or burdock.

Adventitious roots are a little peculiar, in that they usually arise from the stem and may be partially in the air before entering the ground. They include rhizome roots, tubers, and aerial-origin roots like corn.

The most common root is the fibrous root. The root arises from the base of the stem and has a multitude of branching root parts, mostly of equal diameter. These are the roots most often found in grasses and in many rainforest trees.

All three types have family members whose roots are edible.

There are other varieties of roots, including those of parasitic plants and aerial roots. Mushrooms and other fungi produce spores for reproduction but are interconnected by mycelia, which run underground through a fine network in mossy or decaying material soils.

STEMS

Many plant families have unique stems that aid in identifying them. Some of these shapes are so similar to others that it may be difficult to distinguish them. Others may have stunted or almost non-existent stems (like some fungi), others have stems that are so undeveloped that they do not appear to be stems, such as low-growing, creeping plants.

The primary shapes of plant stems are square, angular, oval, lens, triangular, round, winged, ribbed, fluted, hollow, spines, thorns, prickles, and hairs.

When examining an unfamiliar plant, it is advisable not to handle them until you are certain that they are not poisonous, toxic, or irritant. If possible, carry and use disposable nitrile gloves when handling new plants in the wild.

Square—This stem is easy to identify. All members of the mint family have square stems. By rolling the stem between your fingers, you can verify its shape easily. While others, such as fluted stems, may seem similar, the square feel of the mint family stem has no variation along its length.

Angular—These stalks or stems, when cut in a cross-section, have more than four sides and may be ridged or hollow. They include daisies, horehounds, and hops.

Oval—These appear in the cross section to be an elongated or flattened circle. They are more common in wet environments and include bladderwort and pondweed.

Lens—Lens-shaped stems look something like the lens of an eye, almost almond-shaped. Plants with lens-shaped stalks include many irises.

Triangular—Triangular stems have only three sides. Some plants with angular stalks are garlic, bilberry, arrowhead, and sedges.

Round—As the name suggests, round stems are uniformly round, but can be ridged, hollow, or furrowed. Many plants have round stems in varying thicknesses. Sunflower is one such plant, and several of the creeping plants, such as creeping Charlie, also have round stems.

Winged—This stem most often has a round core, and sometimes square, but the flutes actually protrude like wings. They may also spiral around the stem. They may have two or more ‘wings’. Thistles and comfrey commonly have winged stems.

Ribbed—Ribbed stems can be any core shape but have ribs or ridges on them. Bearberry, artichoke, aster, clover, and horsetail have ribbed stems.

Fluted—Fluted stems are distinguishable in our garden, with many having concave shapes. These include celery, rhubarb, and wormwood.

Hollow—Hollow stems, as the name says, have hollow cores. Often, they contain a sap. They include milk thistle, spurge, nettle, and dandelion.

Spines—There are several subcategories of spiny stems. These include thorns, prickles, and hairs. Generally, spiny stems have protrusions that can scratch, prick, or irritate when in contact with skin. Thorny plants include hawthorn, blueberry, and rose. Prickly plants include prickly pear cactus, wild cucumber, and thistle. Hairy plants include nettle.

LEAVES

The easiest way to identify a plant is through its leaf structure and shape.

The parts of a leaf that will provide a guide to identification are the base, margins, lamina, veins, tip, petiole, and midrib. The most telling parts of the leaf are its shape and arrangement.

The leaf may be simple or compound, palmate, pinnate, or bipinnate, and any of a range of shapes from round to oblong, needle to tapered.

Leaf color may vary from gray to bright green, purples and pinks to hues of blues.

Lastly, leaf texture helps in identification. Smooth, waxy, hairy, limp, and thick are a few terms used to describe texture.

Bases

The base is the part of the leaf that attaches to the stem. It may be sheathed (wheat), or appear indistinguishable from the petiole. Most protect a small bud in the axil. Some flare at the bottom, like those in legumes such as clovers.

Petiole: the leaf stalk that pushes out the leaf lamina so that it can obtain sunlight. It only exists in some, not all plant leaves.

Lamina: the thin, generally flat, and widened part of the leaf. Many plants have a central vein in the leaf, called a midrib. From it, several branching veins may be evident, and number and pattern of veins can be an excellent point of identification for plant species.

Veins

The central vein of a leaf is known as the midrib, but it is part of the leaf vascular system similar in purpose to our lungs or veins and arteries.

Midrib arrangement may consist of a singular, central midrib vein or more than one equally dominant vein. They are known as pinnate or palmate (like a palm of the hand with fingers) with more than one dominant vein.

Pinnates have one dominant rib with minor veins running away from the central vein.

Palmates may be of two types: divergent or convergent. When the veins branch out away from the base and then converge again at the top, they are convergent (willow). When they diverge from the base and do not route back toward each other, they are divergent (maple).

Parallel Venations are more uncommon. Veins run parallel to each other, away from the central midrib. Plants with this vein structure include thatch palm and many ferns.

Arrangement and Composition

Leaves may be either simple or compound, and within those categories there are subgroups.

A *simple pinnate leaf* is when the incision of the lamina flows toward the midrib, like the leaf of a turnip.

A *simple palmate leaf* is when the incision of the lamina flows toward the petiole, such as the leaf of a castor plant.

A *compound leaf* is broken up into several segments, like separate small leaves on one stem. Ash, Rose, or Elder trees have compound leaves. There are two types of compound leaves: *pinnately compound* and *palmately compound*, which, in turn, have subcategories.

Pinnately compound leaves have a number of leaflets, either arranged alternately or in an opposite manner. Four sub-categories of pinnately compound leaves are unipennate, bipinnate, tripinnate, and decompound.

Unipennate leaves send out leaflets directly from the midrib, *bipinnate leaves* send out secondary axes with leaflets on them, *tripinnate leaves* send out another level of leaves from axes sprouting from the secondary ones, and *decompound leaves* have more than three levels, like carrots and coriander.

Palmately compound leaves have one or more leaflets attached to the peak of the lamina, with these leaflets in the primary stage of development.

Shape

Leaves may be arranged on the stem of a plant in many ways. They can be *opposite*, *alternate opposite*, *whorled*, and also in a *simple* configuration.

They may be *lobed* (like in the oak or maple leaf), *toothed* & *serrated* (like a cherry or holly leaf), or *entire* with shapes like round, oblong, tapered, and pointed.

Evergreen (coniferous) trees and shrubs (like rosemary, pine, spruce, fir, yew) may have *single needles* like the spruce and fir, or *cluster* and *bundle needles* like the pines.

Ovate leaves are egg-shaped and wider at the stalk, *obovate leaves* are tear-shaped, with the taper at the stalk, *lanceolate leaves* look like lance tips, *acute leaves* are long, slightly oval, and pointed at the tip, *rhomboids* are triangular-shaped, and *spatulate* are shaped like a spatula.

There are other “telling” descriptors of the leaf that often are referred to as parts of the leaf. They include margins and tips.

Margins—edges of the leaf may be smooth, jagged, or saw-toothed. Crenate leaves have rounded teeth along the edges, dentate leaves have sharp teeth-like shapes on the edges, serrated leaves look like the teeth of a saw blade, and undulates have wavy edges or margins.

Tips—this part of the leaf may be round, pointed, or split.

FLOWER ANATOMY

A grade school mnemonic phrase says, “Stamen, Stigma up, I have a Pistil here, and it’s just my Style. I asked a question, and I want an Anther.” It may sound silly, but you will remember the basic reproductive parts of a flower now!

Stamen—the male organ of the flower

Stigma—the head of the pistil

Pistil—the female organ of the flower

Style—the stalk of the pistil

Anther—the head of the stamen.

Most plants can be identified by the flower, in addition to stalks, roots, and leaves.

The remaining parts of the flower, from the stem to the tip of the flower, are peduncle, receptacle, sepal, ovary, filament, and petal.

The peduncle is the extended part of the stalk of the flower, leading into the receptacle in which the flower sits, the sepal, or cage green parts of the receptacle that hold the rest of the flower, ovary (which holds the flower’s “eggs”), filament (part on which the anther sits holding it to the flower) and petals. Petals, of course, are the identifiable “pretty” parts of the flower that will help attract pollinators.

It is the shape and arrangement of the petals and entire petiole that distinctly identify a specific flowering plant.

Flower Shapes

There are two broad types of flower shapes: round and symmetrical (or tubular). Within each type, there are several common shapes you will come across.

Saucer-shaped: large, broad petals close together, forming a shallow bowl shape. These mostly are insect-pollinated or wind-pollinated.

Cup-shaped: more concave version of the saucer shape. Many insects must crawl into these.

Cross-shaped: four petals make up the flower, arranged at ninety degrees to each other.

Star-shaped: five or more distinct petals radiating outward.

Slipper-shaped: a version of a tubular shape formed like a slipper. They are more delicate and generally abundant in nectar and pollen. They are relatively uncommon in temperate climates.

Bell-shaped: these have a deeper narrower bowl than cup-shaped but are often smaller. The petals tend to splay outward at their tips, forming a bell shape.

Tubular-shaped: these often have a pipe-like shape or tall champagne glass appearance.

Funnel-shaped: a loosely packed adaptation of the tubular shape with the petals fanning slightly outward.

Pitcher-shaped: these flowers have a bulbous, wide bottom of the flower tapering towards the top into a cone shape.

Trumpet-shaped: they have a funnel shape at the base, with the petals opening gently out from halfway to resemble a trumpet. They often droop downward.

Rosette-shaped: these flowers have several rows of tightly packed flowers formed in whorls or in circles.

Pompom: a more complex rosette shape taken to extremes with the rows curling back to form a ball. Examples are hydrangeas or German statice.

Pea-like: an unsymmetrical shape, with one large upper petal, two medium side ones, and two small petals at the bottom. Examples are the sweet pea.

Petal Arrangements

Wildflowers have the most basic petal arrangements. As plants were hybridized and bred for appearance, they became more complex and ornamental. There are six primary arrangements:

Single: this is the simplest petal layout, with a single row of fairly flat petals. They are often the flowers of wild plants.

Recurved petals: these petals curve backward from the central point, exposing the stamens prominently, like the tiger lily or wild columbine.

Reflexed petals: similar to recurved, but with straighter petals pointing backward. They are designed to attract flying insects for pollination.

Semi-double petals: less common in the wild, since they tend to be the result of plant breeding. They have two or three rows of petals, forming a typical rose shape.

Double petals: they have several rows of petals forming a tight, layered circle, with few visible stamens. These flowers generally produce abundant pollen and less nectar.

Fully double petals: hybrid petunias, cosmos, or other cultivated flowers fit this grouping. They have a dense dome or ball of petals, often with no visible stamens at all.

Flower Groupings

Flowers are grouped in several ways.

Solitary: each flower is a single flower on one stalk. These include tulips.

Cluster: several flowers, each with a single straight stalk originating on the same stem point. Orchids form cluster flowers.

Flowerhead: many smaller, stalkless florets bunched across a flattened disc. Daisies have a flowerhead.

Umbel: like a cluster, but the numerous flowers form a bowl shape from a single point on the tip of the stem. Carnations form an umbel.

Spike: multiple stalkless flowers growing very densely outward from a single stem. These include larkspur and purple loosestrife.

Raceme: one single primary stem, producing multiple side stalks each with one flower. Gladiolas are racemes.

Cyme: each stem contains several side stalks with several flowers each, like a bluebell.

Corymb: a dense cluster of single-flowered stalks emerging from different parts of the primary stem. They form a dome or flat-topped cluster resembling a single flower. Mints have lovely corymb flowers.

Panicle: the most complex arrangement of flowers, with combinations of raceme, cyme, or corymb clusters branching from the primary stem. Many rangy, thin, prairie flowers have this panicle arrangement.

Flower Habits

Flower habits are the ways the flowers hang from their stalks. Habits may change as the flower grows. The following descriptions are for mature habits.

Erect: all the flower parts point straight upward. These are some of the most common and include daisies and crocuses.

Horizontal: the entire flower points to the side at right angles to the stem, such as gladiolus and some sedge-grasses.

Nodding: as the name suggests, these flowers point loosely downward from an upright stem. The weight of the flowers bends the stem down. Clematis and nodding onion are two types of nodding flowers.

Pendent: typical of bluebells, the entire flower hangs vertically downward from a horizontally pointing stem.

Flower Color Types

There are four general groups of color types and patterns.

Self-colored: this is the most common variety of flower colors. The color is uniform and singular across the entire flower. Scarlet lightning is self-colored.

Bicolored: these flowers have two distinct colors in each petal, with a clear division between base and tip. These are features bred into the flower, and so are found in highly hybridized or cultivated plants. It can happen spontaneously in many species. Some zinnias are bicolored.

Picotee: these are a variant of bicolored flowers with the edge showing a different color than the rest of the petals.

Striped: striped flowers containing two colors in stripes along the length of the petal include the cascade petunia and some complex domestic roses.

With all these subtle parts of the plant, the best way to dig into identifying and finding wild plants is to examine each species. Below you will find a list of thirty-two recognizable and foragable plants from across North America. This collection is by no means exhaustive, but you will find a wide variety of uses and some which you already recognize from your own backyard.

CHAPTER FOUR:

ASPARAGUS

Latin Name: Asparagus officinalis

It is easy to understand asparagus' symbolic connection to fertility from early Roman times, onward. The phallic symbol originally grew in the gardens of rich citizens of Rome. In addition to its reputation as an aphrodisiac, it is a symbol of birth and rejuvenation, being one of the first green shoots of every spring. When introduced to England, folklore claimed that it was known simply as "a spear of grass," eventually shortened to a-spear-a-grass, or asparagus.

Ironically, it is also a symbol of order and status, given its short harvest season, quick growth, and the history of being only available to aristocrats, but it has become somewhat of a barbarian plant, growing wild in every region of the United States.

Dioscorides, a very early author of books on plants, claimed that if one planted bits of ram's horns, asparagus would spring up. Of course, it even seemed unlikely to him! He further claimed that wearing an amulet of upside-down asparagus would make one barren, while Arabic health experts 1200 years later claimed that the same method would increase carnal lust and improve a person's fertility.

This historical and amusing discordance ties well into the "love-it-or-hate-it" attitude adopted in the modern-day about asparagus.

Description of the Plant: asparagus is readily identified by its spear-like stems and leaves rolled as if one. The spears grow from the base of the plant in early spring. In early summer, flowers emerge along the length of these stems. At this point, they are woody and inedible.

Common Names: it is known as sparrow grass and asparagus fern.

How, When, and Where to Gather: wild asparagus can be found in every state of the United States and every province of Canada, growing as far north as the 54th parallel. It is not native to North America, it was introduced in Europe as a cultivated crop and brought to the Americas with colonization.

It grows best in black soils, grassy meadows, vacant lots, gravelly areas along pathways and roadways, waste areas, and fence rows. It prefers sandy soils that have been disturbed.

Asparagus is best picked in early morning and in spring, when moisture content is high and plants remain tender.

Health, Nutritional, and Medicinal Benefits: it is an antioxidant, anti-inflammatory, antibacterial, antihepatotoxic, immunostimulant, anticancer, diuretic, and laxative.

Asparagus, aside from being a very healthy culinary vegetable, has health benefits that include being a laxative, having contraceptive effects, acting as a treatment for neuritis, cancer, rheumatism, acne, UTIs, kidney and bladder stones, constipation, anemia, and AIDs.

Edible Parts: the stem/leaves or the singular shoot that appears above the ground can be eaten and enjoyed.

Look-Alike Plants (Poisonous and Not): asparagus' fruits are poisonous—Japanese knotweed, horsetail, asparagus fern, and blue indigo all look like asparagus. Only blue indigo is poisonous.

Recipe: Wild Asparagus Salad

Ingredients

½ pound wild asparagus, washed, trimmed

2 eggs, hard-boiled and crumbled

1/3 teaspoon paprika

2 tablespoons parmesan cheese

Salt & pepper to taste

Method:

Boil asparagus for three to five minutes until slightly tender. Cool, add spices, top with egg, and cheese.

CHAPTER FIVE:

BLACKBERRY

Latin Name: Rubus allegheniensis

Blackberries carry a heavy burden of folklore and spirituality that does not rest well with this highly nutritious and tasty berry.

Legend says that Lucifer was thrown out of heaven on September 29—Michaelmas Day—and he landed in a big patch of brambles. He cursed the brambles from that day on, spitting on them, scorching them, and swore that those that ate blackberries after that date would be cursed. So, if legends are to be believed, buy or pick blackberries in October with extreme caution! Why then are we allowed to eat the fruit the rest of the year, if Satan spit, urinated, and stomped on them?

And why, in some parts of the world and Christian history, is it considered a holy plant? Some historians suggest that the blackberry was the burning bush in the story of Moses and the Ten Commandments.

Healthy eating devotees and lovers of blackberry pie may well ignore the myth and caution given the many health benefits of eating this special fruit.

Description of the Plant: common blackberry is an invasive shrub that grows up to five feet in height. Its distinguishing feature is its berry production, with very dark black fruit clusters which produce in mid-to late-summer. It has pinnately compound leaves with very prickly, stiff stems. Leaves are oblong to tapered, with toothed edges and prickles on the petioles.

Common Names: it is known as high bush blackberry and low bush blackberry.

How, When, and Where to Gather: blackberries commonly grow in the eastern USA and Canada, as well as the Pacific coast. They prefer temperate climates. Some types are found in every state and every province. In the past century, they have moved into the Midwest and are considered to be invasive. Their northern range is about 70 degrees north.

Blackberries prefer organic, well-drained soils, neutral to slightly acidic soil (pH 6.0-7.0), good sunlight, and moderate moisture. They will grow in almost any soil, however.

Blackberries produce fruit in early to mid-summer. Gathering berries in the early daytime will help them retain their moisture. If you are worried about brambles, use gloves when picking.

Health, Nutritional, and Medicinal Benefits: it is an anti-diarrheal, anti-inflammatory, and also a diuretic.

Blackberry is viewed as a noxious weed by many, but has incredible health benefits due to its high nutrient content, antioxidant power, and stores of minerals and active chemical ingredients. It is used to treat diarrhea, whooping cough, cancer, dysentery, colitis, amenia, hemorrhoids, cancer, diabetes, gout, inflammation, toothache, sore throat, ulcers, and minor bleeding.

Edible Parts: You can eat both the fruit and the leaves.

Look-Alike Plants (Poisonous and Not): loganberries, boysenberries, and mulberries all are similar in appearance to blackberries. None are toxic and all are edible.

Recipe: Blackberry Rose Ice Pops

Ingredients

2 cup blackberries, washed and culled

½ cup rose petals, crushed

⅔ cup cane sugar

1 tablespoon lemon juice

Method:

Blend all ingredients in a blender until smooth. Pour into individual ice pop containers and freeze solid. Enjoy!

CHAPTER SIX:

BLUEBERRY

Latin Name: Vaccinium augustifolium

Try not to hum Fats Domino's tune of "I Found My Thrill on Blueberry Hill" now that it has been planted in your memory. Savor the taste of blueberries on ice cream or blueberries in sweet cream as you visualize the fruit. Then try to get your share of the fruit in the wild as you compete with bears, only months out of their winter sleep and still voracious. The fruit is hugely popular because of its wide availability, unique taste, memories of childhood foraging, and its health benefits.

A popular myth is that blueberries are the favorite fruit of angels, but they don't like the skins, so after a night of gorging on the fruit and tossing the skins aside, in the morning, the heavens are littered with these gorgeous blue skins, making the sky blue. They certainly make your tongue, fingers, and lips blue when they are eaten, but they are more than worth this inconvenience.

One of Robert Frost's longest poems deals with the virtues of blueberries. He talks of how others, picking in the same area where he was picking, look at him as if he has no right to share in their bounty.

Description of the Plant: the fruit is easily identified. Many of the plants grow low to the ground, but others grow as high as six feet, often in filtered sunlight at the edges of coniferous woods. They frequently are found in the same area as bearberries. The flowers in spring start out as very small, teardrop-shaped buds developing into bell-shaped flowers. Leaves are ovate, with the oval wider at the bottom than the top and a toothed edge. Multiple stems grow from

the long, branching roots each spring, with the roots often visible through the rotting leaves and mulch of the forest undergrowth.

Common Names: it is known as the huckleberry.

How, When, and Where to Gather: blueberries prefer acidic soil (4.2 to 5.2 pH), moderate moisture, and moderate to full sun. They grow primarily in the eastern two-thirds of the North American continent. Blueberries grow low to the ground and produce fruit in early summer. By mid-summer, berries begin to dry up, and wild animals, such as raccoons and bears, feast on them.

Health, Nutritional, and Medicinal Benefits: it is an anti-inflammatory, astringent, diuretic, antioxidant, anti-microbial, anti-edematous, venous tonic, vaso-protector, anti-platelet, antiemetic, and anti-diarrheal.

Blueberry is used to prevent cataracts and glaucoma. It treats ulcers, MS, fibromyalgia, urinary tract infections, fever, varicose veins, hemorrhoids, protects against heart disease, detoxifies the system, strengthens immunity, slows aging signs, prevents diabetes, stimulates circulation, and works as a laxative. Blueberries are very nutrient dense and very high in antioxidants.

Edible Parts: This bountiful berry is widely enjoyed and popular.

Look-Alike Plants (Poisonous and Not): salal, bilberries, pokeberries, nightshade, and buckthorn berries all resemble blueberries, but both pokeberries and nightshade are deadly poisonous to humans.

Recipe: Wild blueberry Fruit Dip

Ingredients

2 cups blueberries

1 cup whipped cream

1 cup plain cream cheese

¼ teaspoon nutmeg

Method:

Blend all ingredients together, but do not overdo it, let the berries remain relatively intact. Place in a decorative bowl and place other fruit like whole strawberries, large chunks of banana, apple, or pear slices around it to dip in.

CHAPTER SEVEN:

BURDOCK

Latin Name: Arctium lappa, Yellow Dock- Rumex crispus



Late at night, pixies would amuse themselves by riding colts through the fields, planting horse's manes, which would become cockleburs. At least, that is the European myth.

In Greek mythology, burdock derives its feminine energy from the Greek goddess Venus. This “feminine energy” was credited with its

blood cleansing powers and it often was used in folk medicine during and after pregnancy.

A young gardener tending a house that was on the market for sale, carefully mowed the grass around a plant near the entrance step, believing it to be either rhubarb or horseradish which he had seen often in local gardens. The plant, with its enormous leaves, grew over the next few months to nearly five feet tall, producing abundant leaves and small purplish flowers. The flowers were new to him, as were the seed pods that formed in late summer. They clung to him, attaching themselves painfully to his clothes, his hair, and even his skin. Instead of carefully tending a flower, he had been cultivating one of North America's most common weeds: burdock.

Description of the Plant: burdock may begin its life resembling horseradish, but its rapid growth quickly eclipses that of its look-alikes. The mature plant has an ungainly appearance, quite tall (exceeding five feet), with a thick, round, and woody stem and huge, shovel-sized leaves, up to eighteen inches long on multiple heavy branches. In the first year, it produces a handful of medium-sized leaves, growing in a rosette with a minimal stem. Its long, tapering root grows rapidly in that year. The young stems have numerous hairs, like cobwebs, but these hairs disappear in the second year, replaced by a veiny stalk.

Leaves look somewhat similar to horseradish or even very large rhubarb leaves, oblate in shape. They are dull green on top, facing the sun, and slightly whitened underneath.

The flowers do not emerge until the second year, appearing from July until frost comes. They are purple and are borne in small clustered heads with hooked spines. The spiny burs formed are great pests, attaching themselves to clothing and to the wool and hair of animals. The flowers appear somewhat similar to the purple flower of a thistle, with sheath bracts forming a cup around the flower, green at the base and yellowish-green toward the flower part.

They have a spiny appearance. The flowers turn brown prior to forming seed pods that enclose the withered flower in late summer.

The plant has a large fleshy taproot. When dry, this root is much wrinkled lengthwise. Burdock is one of the easiest plants to find in the late fall and winter. Truthfully, you don't find burdock; it finds you, with its Velcro-inspired burs and tall, bush-like habit.

Common Names: it is known as cocklebur, cockle button, bardane, and bur.

How, When, and Where to Gather: burdock is not native to the Americas. Settlers from the old world introduced it to North America, and it now grows along roadsides and in fields and bush lines, near old homesteads, barnyards, pastures, and waste places. It is very abundant in the Eastern and Central States, all the Canadian provinces, and in many localities in the West, except the south-central United States.

It is extremely hardy and grows wherever animals have walked routinely. While it prefers nitrogen-rich soil, it will grow almost in any soil in full or partial sun. The roots form best in light well-drained soil.

Because the burs on the seed pod latch readily onto fur and clothes, the plant is spread widely. Once pets, for instance, gnaw the burs off their fur, the seed pod drops and grows where it falls, often near entrances, barns and buildings, underbrush where wild animals bed down, and so on. Stories abound that the inventor of Velcro used burs as the template for his invention.

Burdock roots can be harvested even in winter, since this tall weed often is visible above the snow. Leaves are best picked in early spring, before they become overly large and tough.

Edible Parts: young leaves and shoots, roots, occasionally seeds. In the spring of the plant's second year, harvest the roots and use them as a starch-like vegetable. They can be consumed fresh or sliced thin and dried. If you slice them too thick, the roots may

become moldy quickly. You may harvest older roots in the fall and winter.

As a survival food in winter, burdock is a great cache. The plants are easy to find among snowdrifts, often towering above them. Chop the roots free of ice in colder regions and peel them, eaten raw or boiled. In spring the young, small leaves and early parts of the stems (peeled) are tender. They may be used in stews, soups, and salads, or sauteed with butter.

The flavor of burdock is a cross between sorrel and spinach with a bit of a tart tang. Because the leaves are high in oxalates (like rhubarb leaves and horseradish leaves), you should not consume large quantities at a time.

Burdock root and young stems may be peeled, sliced, lightly blanched, and stored in vinegar brine in the refrigerator for up to two weeks, producing a unique pickle.

The Japanese often use burdock, known as Gobo, in their culinary dishes.

Health, Nutritional, and Medicinal Benefits: burdock is an antioxidant, anti-inflammatory, stimulant, diuretic, laxative, antifungal, anticarcinogenic, antiviral, and antidiabetic.

Burdock has numerous medicinal uses and health benefits. Nutritionally, it is high in protein, beta carotene, Vitamin C, calcium, magnesium potassium, Vitamin E, folates, and zinc. It is used in liver cleanses, the leaves in poultices for skin damage and eruptions, the roots for hair and scalp treatments. Burdock has been used to treat colds and measles, relieve constipation, and purify the blood. Decoctions from the root and seeds, or infusions from the leaves are used to treat gout, colds, rheumatism, stomach ailments, cancer, and constipation.

Look-Alike Plants (Poisonous and Not): three plants that often get confused with burdock are primrose, foxglove, and rhubarb. Of the

three, primrose and foxglove should be handled with care. Foxglove is the source of digitalis, a heart medication, but all parts of the plant are toxic. Primrose primarily grows in gardens in North America, but a variety of primrose—loosestrife is an invasive, noxious weed found around the continent. Primrose, like foxglove, is poisonous and causes serious skin irritation when touched.

The leaves may cause contact dermatitis for people with allergies. Some reports show that the leaves, when consumed in large quantities, can be toxic, because of its high oxalate content. Rhubarb, foxglove, primrose, and nightshades all have leaves similar to burdock, but foxglove, primrose, and nightshades are poisonous.

Recipe: Burdock and Mushroom Brown Rice

Ingredients

1 cup brown rice
2 cups water
1 shiitake mushroom, chopped
1 cup diced burdock root
4 garlic cloves
1/3 teaspoon ginger
Salt and pepper to taste

Method:

Cook brown rice, shiitake mushroom, burdock root, garlic, and ginger with the addition of salt and pepper to taste.

A great sauce recipe includes one cup burdock root, 1/2 cup parsley, 1/2 cup cider vinegar, 1/2 cup sherry, and one cup of thick yogurt (Greek, preferably). Boil the cider, burdock, and sherry over medium heat for six to eight minutes, then blend all ingredients until smooth. This sauce is fantastic with vegetables (particularly green veggies) pork or chicken.

CHAPTER EIGHT:

CATTAIL

Latin Name: Typha latifolia, Typha angustifolia

Of all the plants, cattail possibly has the most direct connection to religious lore and mythology. After all, it was in a bed of cattails, or bullrushes, that Egyptian royalty found the baby Moses. The rest is Christian history!

Early North American settlers relied on cattail seed pods as fire tinder, bedding and jacket insulation, and even insulation in shacks and shanties. They wove the leaves into baskets and even roofs of buildings and ate the roots and young leaves. The giant brown seed pod heads, soaked in coal oil or kerosene, acted as great torches. In marshes and ditches across wide swaths of the continent, cattails now are so prolific as to be considered a nuisance. Yet they are indispensable for our environment, filtering pollutants from entering major waterways. Their huge, Popsicle-shaped flower heads and seed pods are easily recognized.

Description of the Plant: the leaves—emerging from long, creeping rhizome roots—are long, thin, and somewhat tapered. The plant produces tiny, unisex flowers in a dense, cylinder-shaped head about four to six inches long. The flowers fall off after being pollinated, creating the brown, puffy knot that we readily recognize. Very late in the autumn and into the winter and spring, the brown, dense cylinder releases masses of cotton-tufted seeds, dispersed by the wind.

Cattails, or bullrushes, are one of the easiest plants in the marshes and waterways of North America to identify, and they are very abundant. Most people recognize the corn dog-shaped flower and

seed head that sits atop the plant in the fall and winter, or the white fluff that erupts when the seed pod ripens and sends the seeds into the air. Almost as many recognize the tall (up to five feet), singular leaves, long, flat, and thin, that grow incredibly fast through the spring and summer. Few, though, see the light green shoots in the mud, or even under the water in early spring.

Common Names: it is known as broadleaf cattail, bulrush, common bulrush, and also as the common cattail.

How, When, and Where to Gather: cattails are one of the true survival foods of North America. Found in abundance throughout all North America, Mexico, and parts of the Caribbean islands, this versatile plant provides nourishment, shelter, flavoring, and heat.

It is not grown domestically, but can be planted successfully in decorative ponds. It grows best in heavy clay or sour soil in swamp edges and along slower creeks, drainage ditches, waterways, and even wastewater lagoons, where locals sometimes employ it as a “green filter” for domestic sewage. Cattails serve as this excellent natural filter in swamps at the heads of rivers and creeks leading to larger lakes, where nutrients are scooped out of the water mix by the plants, and larger waste trapped and consumed over time.

Health, Nutritional, and Medicinal Benefits: medicinally, cattails are hemostatic, astringent, diuretic, antiseptic, coagulant, and emmenagogue (aids in menstruation).

Cattails may be harvested throughout the year. Use plants harvested from clean water, as they pick up the toxins and pollutants from the surrounding soil and water. Nutritionally, cattails are high in fiber, sodium, calcium carbohydrates, manganese, vitamin K, and iron.

The young shoots in the spring are wonderful, raw or boiled, with a taste like borage or cucumber. The pollen from the flowers in the late spring makes a great thickener for various boiled dishes. The green

buds that precede the small flowers are a great, crunchy snack in early summer. Throughout the year, roots are edible but, as they age, they pick up much of the pungent taste of the swampy water in which they grow.

The fibrous root network, when boiled, yields a great starchy paste that is great for “bread,” or in soups. The root bulb itself tastes like a potato, and cooks like a potato, but can also be eaten raw. The roots may be dried and stored, as can the small flower head.

Use cattail pollen as an astringent and hemostatic, on cuts and wounds to control bleeding. Take it internally for chest pain and blood issues. Pounded root, as a poultice, is effective on wounds, bruises, and stings. Cattail has been used to treat anemia, cancer, diabetes, digestive disorders, hypertension, and hardening of the arteries.

Edible Parts: all parts of the cattail are used. As the plant reaches adulthood, leaves are no longer edible but remain useful.

Look-Alike Plants (Poisonous and Not): In the spring, when swamp, water and bog plants are young, species of Iris, Acorus, and some Bulrushes all resemble the young Cattail plants. Blue flag iris, which also grows in swampy areas in the United States, looks a lot like cattail but is poisonous. Any other look-alike is generally unpalatable, but not harmful. There are no known contraindications for Cattail. No adverse side effects or reactions have been documented with any consistency.

Recipe: Cattail Pancakes

Ingredients

½ cup flour

½ cup cattail pollen

1 cup dried cattail root flour

1 tsp baking powder

2 eggs

2 cups milk or water

½ cup honey

¼ cup oil

½ tsp vanilla or maple extract

Method:

Mix all dry ingredients. Lightly whisk eggs in a separate bowl, add in milk, honey, and vanilla, then blend wet and dry ingredients until a medium-thin paste forms. Cook like pancakes and serve with syrup and cinnamon.

CHAPTER NINE: CHICKWEED

Latin Name: Stellaria media



Chickweed—independent, sprawling, and free-ranging, is symbolic of family. In folklore, it is associated with balance, fidelity, and loyalty, yet it is a plant that loves its space. Between chickweed plants and among its own leaves, it spaces itself out, but grows in clusters in the

same way that families and villages form bonds and rely on each other, yet give each other a bit of space.

The same plant to which hundreds of thousands of users are allergic and from which we experience hay fever symptoms has provided natural healing remedies for the First Nations of North America for centuries. Like goldenrod, it is a European plant, gone wild, naturalized to most of the continent, and adopted by indigenous people for both its nutritional and medicinal value. It was used for colds, whooping cough, bronchitis, and sore throats, and used as a fresh dietary “green” in late spring and early summer. Leaves are dried and made into teas. From a healthy dietary source for early settlers, it has become a scourge, considered to be a noxious weed by farmers and landscapers.

Description of the Plant: chickweed has small, bunched leaves and small, inconspicuous white flowers. It grows to 45 cm (18 in.), but generally hugs the ground, creeping and spreading. It is an annual. The leaves look similar to thyme leaves. It is considered a broadleaf weed because of the broad shape of the leaves, but the leaves are quite small.

Common Names: commonly called chickweed, field chickweed, and mouse ear chickweed.

How, When, and Where to Gather: common chickweed grows in most states, the coast and interior of British Columbia, Ontario, Quebec, the Maritime provinces, and southern portions of the prairie provinces. It is a noxious weed in many parts of the continent, invading lawns and fields. It is a Eurasian plant that now is naturalized in most of North America, preferring fields and lawns (bright sun to partial shade), moist and loamy soils. Pick in early spring when both leaves and stems are still tender. Later in the spring and summer, pick only the leaves and flowers.

Health, Nutritional, and Medicinal Benefits: chickweed is a demulcent, anti-inflammatory, and anti-irritation.

Chickweed contains phytosterols, tocopherols, triterpene saponins, flavonoids, and Vitamin C. Consuming excessive amounts of chickweed can cause nausea, upset stomach, and diarrhea.

Chickweed is used to treat itches and skin conditions. It also is used to treat pulmonary diseases, iron deficiency, bronchitis, arthritis, and menstrual period pain. It can be used as an eyewash. Chickweed may relieve constipation, stomach and bowel problems, blood disorders, asthma and other lung diseases, obesity, scurvy, psoriasis, itching, and muscle or joint pain. Chickweed supports digestion and weight loss and heals wounds.

Blend in a blender, ½ cup chickweed leaves, and ¼ cup carrier oil like olive or almond oil to use and apply topically.

Edible Parts: you can eat the leaves, flowers, and stems. Chickweed leaves go well in fresh salads, soups, and egg recipes.

Look-Alike Plants (Poisonous and Not): a toxic look-alike is the scarlet pimpernel. However, the scarlet pimpernel has reddish-brown flowers rather than white.

Recipe: Chickweed Pesto

Ingredients

½ cup walnuts

3 cloves garlic

3 cups chickweed leaves, packed

1 tbsp lemon juice

½ cup grapeseed oil

½ tsp salt

¼ cup parmesan cheese

Salt and pepper to taste

Method:

Blend in a blender until smooth and refrigerate.

CHAPTER TEN: CHICORY

Latin Name: Cichorium intybus



Chicory is associated with Clytie, Apollo's illicit lover. Tales of her exploits, as she would engage in a secret tryst each morning with Apollo, spring from Chicory's habit of blooming only in the early morning hours.

Chicory may be one of the essential wilderness survival foods if one needs a cup of java each morning. While the taste of ground chicory coffee is nothing like real coffee, it does offer a bitter stop-gap substitute and, at least, a perceived jolt of energy. Chicory contains no caffeine, but it has a much higher soluble content than coffee, giving it that essential strong kick.

Classic Western movies always seem to have cowboys drinking coffee every morning on a roundup, but it is more likely that they were using chicory or dandelion root, ground and boiled. Chicory only blooms in the early morning, making it easily identified for wanderers seeking their morning beverage.

For the devout, religious symbolism places Chicory as a bitter symbol of Christ's passion.

Description of the Plant: Chicory roots are long and fleshy taproots. The stem is rigid, branching, and hairy, growing up to five feet, but more commonly under three feet. Leaves are lobed and toothed, looking somewhat like dandelion leaves. They grow around the base. Flowers are blue and sometimes white. The plant begins as a rosette in the spring as the stems emerge from the root base. Later in the spring and early summer, one stem emerges from the rosette, growing to the plant's full height as it produces flowers from the stem.

Common Names: known as blue daisy, cornflower, wild endive, and wild bachelor's buttons.

How, When, and Where to Gather: Chicory can be found in abandoned fields, areas along roads and rails, untended grassy areas, undeveloped land, waste areas, and pastures. These are the same locales where both hawthorn and horseradish—two plants introduced to North America by Europeans—also thrive. That is, they often are found near old homesteads and living areas of early settlers. It likes limestone and gravelly soils. Chicory roots can be

harvested in spring, summer, and fall. In the fall, the essential oils focus in the roots, giving them a strong taste. Chicory buds produce in late spring.

Chicory is found throughout North America, growing west to California, and south to Florida.

Health, Nutritional, and Medicinal Benefits: it is trophorestorative, emollient, laxative, demulcent, refrigerant, and anti-inflammatory.

Although chicory commonly is associated with being a coffee substitute on trail rides, its medicinal properties go well beyond that. It is an appetite stimulant, tonic for urine output, liver protector, and used to balance the stimulant effect of coffee. It also treats gallstones, sinus problems, constipation, liver issues, cancer, rapid heartbeat, and gastroenteritis. Externally, it can be applied to cuts and bruises, and used to help reduce swelling and inflammation.

Edible Parts: you can eat the root, leaves, and the buds.

Look-Alike Plants (Poisonous and Not): there are no poisonous plants that are confused with chicory, making them, along with dandelion, the safest plants to harvest in the wild.

Recipe: Sauteed Chicory

Ingredients

1 bunch chicory leaves, washed

2 cloves crushed garlic

¼ teaspoon red pepper flakes

¼ teaspoon turmeric

salt to taste

2 tablespoons butter or olive oil

¼ cup sunflower seeds, shelled and cooked

Method:

Sauté ingredients in butter for three to four minutes, or until tender. Serve, sprinkle with shredded mozzarella cheese or three tablespoons of plain Greek yogurt mixed with one tablespoon of lemon juice.

CHAPTER ELEVEN:

DANDELION

Latin Name: Taraxacum officianale

You face a choice: eradicate them or enjoy them. Every spring, almost the first flower to bloom in the northern hemisphere seems to be dandelions, across every lawn north of the 49th parallel, and even well down into the south-central United States. Europe, too, has dandelions in abundance.

Dandelions have a spiritual meaning, too. They represent hope, light, and healing. They denote strength, peace, growth, happiness, and playfulness. But still, they are walked on, sprayed and eradicated, and loathed. Yet, in an odd irony, young hearts wherever the plant grows, puff on the seed pods and make a wish, hopeful for the future. It is this love/hate relationship that is at the heart of the need to eliminate them while also making use of every part of the plant to sustain us and keep us healthy.

But dandelions are only noxious weeds because of our perception of them. In fact, they are one of the best sources of nourishment in any plant, from flower to root. They arrived in North America as a garden flower, cultivated in Europe.

In the spring, the young dandelion greens (the tender leaves) are delicious in salads or boiled and buttered, with thyme.

Dandelion easily is one of the most versatile nutritional and medicinal plants that can be harvested in the wild in North America. Root, leaves, and flowers of the dandelion all can be consumed, for both health benefits and culinary uses.

Description of the Plant: imagine a small version of the sunflower without the dark center of florets. The dandelion flower is one of the

most recognizable wild flowers in North America, with its bright yellow face of petals. It grows across all of North America, but does particularly well in colder northern climates. It is one of the first northern latitude flowers to bloom in spring, after crocuses and marsh marigolds, but can bloom all year if it keeps being cut by mowers or eaten by livestock. The flowers reappear days after the previous flower is cut, often on shorter milk-filled stems than the prior one. The leaves form at the base of the plant. They are toothed, but the teeth usually are smooth.

Common Names: It is known as bitter wort, Irish daisy, and clock flower.

How, When, and Where to Gather: harvest dandelion leaves in early spring, before they become mature, tough, and bitter. The flowers are harvested throughout their blooming period. The roots are best harvested in early and late summer.

Health, Nutritional, and Medicinal Benefits: it is a diuretic, choleric, anti-inflammatory, cholagogue, tonic, antirheumatic, bitter, alterative, and depurative.

Dandelion is used as a tonic, blood purifier, gallbladder, kidney, and urinary tract disorder treatment, liver treatment for jaundice and hepatitis, to relieve constipation, as a salve for inflammatory skin conditions, joint pain, and eczema. It also is used to treat hypoglycemia, edema associated with high blood pressure, gout, and even acne.

Edible Parts: You can eat the roots, young leaves, and flowers (make wine).

Look-Alike Plants (Poisonous and Not): None.

Recipe: Dandelion Bean Skillet

Ingredients

2 bunches washed dandelion greens

¼ sliced red onion

2 cloves garlic, crushed

1 teaspoon oregano

¼ teaspoon black pepper

2 cans fava or kidney beans

½ cup peanuts

Method:

Sauté onion and garlic in two tablespoons of butter or olive oil until tender then add remaining ingredients, season with salt and pepper, and serve.

CHAPTER TWELVE: FIELD MUSTARD

Latin Name: Allaria petiolata, Brassica juncea



The tiny mustard seed finds itself at the center of several of Christ's parables about faith. Mohammed's teachings focus on faith, describing the value in the smallest amount of faith as "even as tiny as the tiny mustard seed" as immeasurably important. Yet, mustard finds itself eschewed by many, criticized for the potential it has in the

way of digestive harm, often discarded as waste, and reviled as a weed by farmers.

A group exploring the potential to use different feedstocks—sources of oil—for a local biodiesel plant hit upon the idea of using the waste from seed cleaning facilities in the area. Most of the waste seed that the cleaners screened from the grain and canola crops was wild mustard. It contained between 35-45 percent oil that was quite suitable for biodiesel.

This oil, being “hot” and high in uric acid, harmed the digestive system so the mustard seed could not be found in the waste byproducts of biodiesel that often were fed to cattle. However, the farmers discovered that the paste remaining from the extraction process, spread around the perimeter of gardens, worked wonders at repelling crawling insects and small rodents. They used practical applications, instead of the religious faith surrounding the mustard seed in the Bible, Hinduism, Islam, and Buddhism.

Description of the Plant: Mustard starts out as a basal plant with rosettes springing from the root. Flowering stems do not emerge until the second year. Plants grow up to four feet tall with a multi-branched stem. The leaves often develop a white color later in summer. Lower leaves are rough-shaped, a little like small rhubarb or burdock leaves, and about a foot long with up to four lobes. Upper leaves have no lobes. Flowers are yellow and look similar to tansy flowers, clumped in a small head.

Common Names: it is known as wild turnip and wild kale.

How, When, and Where to Gather: Field mustard loves sandy and clay soils and has a wide pH range of 4.8 to 8.5. It grows in most disturbed areas, as well as gardens and fields, invading crops like canola. It can be found along roads, in ditches, in orchards, and even in unmowed lawns. It is considered a noxious weed because of its adaptability. It has spread to almost all of the North American

continent. Harvest leaves in early spring, before the heat of summer makes them tough and harsh-tasting. The seeds are ready in late July and August.

Health, Nutritional, and Medicinal Benefits: it is an antirheumatic, anti-bronchial, irritant, stimulant, diuretic, and emetic.

For many people, mustard poultices come with memories of childhood, as the hot patches on the chest relieved coughs and colds effectively. For others, it was an anti-worm treatment. Wild mustard has the same, only more intense, qualities as domestic yellow mustard. It opens blood vessels, allowing the system to detoxify and increase blood flow. It reduces pain and swelling. It is effective as a headache treatment when consumed as tea. Mustard is also used to treat painful joints and muscles, arthritis, relieving edema, increasing urine output, and increasing appetite.

Mustard can be used to treat painful joints and muscles, relieve arthritis and edema, increase urine output, and increase appetite.

Edible Parts: You can eat the young leaves, seeds (spice), and the flowers.

Look-Alike Plants (Poisonous and Not): Wild mustard and wild rapeseed or canola look like mustard, but none of these are poisonous.

Recipe: Stir-Fried Chinese Mustard Greens

Ingredients

1 ½ pounds mustard greens

¼ cup crushed almonds

4 cloves garlic

½ teaspoon red pepper flakes

½ teaspoon Chinese Five Spice

½ pound bok choy

1 ½ teaspoons cane sugar

2 teaspoons sesame oil

1 teaspoon lemon juice

Method:

Add garlic and chili to two tablespoons of hot oil in a wok. Cook for one minute, add mustard greens, and bok choy. Cook for two minutes, then add remaining ingredients, season with salt and pepper, and cook for another two minutes, tossing as it cooks.

CHAPTER THIRTEEN: JERUSALEM ARTICHOKE

Latin Name: Helianthus tuberosus



Jerusalem artichoke has an ugly, unpleasant lore associated with it, playing on the ignorant prejudices of people of the Middle Ages. Because of its gnarled root, it was shunned as the plant of lepers, its twisted shapes mimicking the deformities of people with the disease.

For those wildcrafters who believe they are searching after an artichoke when they head out to harvest the Jerusalem artichoke, nothing could be further from the truth. The Jerusalem artichoke is not an artichoke and is not from Jerusalem. In fact, it is a sunflower that is grown not for its sunflower or seeds, but for its tuberous root.

The name appears to come from a British corruption of the word *girasol*, meaning “sunflower,” then adding the word “artichoke” because of its taste, similar to an artichoke.

Everything about the Jerusalem artichoke is peculiar. It was, at one time, an important root crop export from North America and was known as the ‘Canada potato’, even though the range for this tuber is very limited in Canada but spreads across the entire United States. Even though it was sometimes called the leprosy potato because of its appearance similar to the gnarled digits of a leper and was shunned by many, it continued to grow in popularity. This plant was originally not found anywhere except in North America but now is one of the most commonly cultivated garden plants in all of Europe.

Description of the Plant: Jerusalem Artichoke has many characteristics in common with the rest of the sunflower family. It grows two to eight feet tall, with the occasional stem branches in the top half of its length. Stems are light green, hairy, and pithy. Leaves are opposite on the lower half of the plant, alternate toward the top, with a rough, hairy texture. The leaves also are larger on the bottom and are the typical sunflower-shaped broad, ovate-acute, while at the top they are smaller, narrower, and less abundant. The flowers look the same as most sunflowers, but smaller—roughly half the size of a sunflower. Briefly, these flowers emit a lovely chocolate-vanilla scent as they attract pollinators.

Common names: they are known as sunchokes, earth apples, and sunroots.

How, When, and Where to Gather: Jerusalem artichoke comes from the eastern United States, where it was a significant food crop for native American tribes. It now grows in every state except Arizona, New Mexico, Nevada, Alaska, Hawaii, and every Canadian province east of Saskatchewan. It prefers moist meadows and valleys, and is common in old gardens and homesteads, fence lines, and roadsides. Roots reach maturity in late summer. Smaller leaves can be consumed throughout the growing period, as can the stalks.

Health, Nutritional, and Medicinal Benefits: it is an antioxidant, antidiabetic, anti-carcinogenic, anti-fungistatic, and anti-constipation remedy.

The root, stem, and leaves have many medicinal and health applications along with their culinary use. It has lots of iron, potassium, and Vitamin B1. They are gut healthy, a source of probiotics, inulin, and fiber. Jerusalem artichoke helps to fight obesity, helps the immune system, works well with insulin, modulates metabolism, and helps muscle function.

Edible Parts: you can eat the root and small leaves (shredded for salads).

Look-Alike Plants (Poisonous and Not): many other members of the sunflower look like Jerusalem artichoke, but none are toxic.

Recipe: Roasted Jerusalem Artichoke

Ingredients

1 pound Jerusalem artichoke root

½ cup avocado oil

salt and pepper to taste

2 tablespoons oregano or marjoram

¾ tablespoon powdered garlic

Method:

Set the oven to 350° Fahrenheit. Peel, trim, and clean the root, cutting it into one-inch pieces. Toss all the ingredients together in a large bowl. Place root on an open roasting pan or cookie sheet and bake in the oven for 45 minutes, turning occasionally, and drizzling spiced liquid on roots.

CHAPTER FOURTEEN: LAMB'S QUARTERS

Latin Name: Chenopodium album



Lamb's quarters is a symbol and plant of immortality in Greek mythology where many healing plants find their history.

Lamb's quarters is a somewhat more romantic name than its other names, pigweed or goosefoot. Lamb's Quarters has been mostly shunned by the modern world, but not so in indigenous cultures. It is

an ungainly plant that, supposedly, even pigs reluctantly ate. Yet, many families familiar with its taste, abundance, and nutritional value consumed it in the 1900s as a staple part of the summer diet. It ranks right up there with ragweed as a less-than-attractive dish.

Indigenous people in western Canada introduced settlers to pigweed as a staple food. Even though it has a very short growing season and is a very leggy plant with lots of stems, the First Nations people knew it was good for health and good for meals. Settlers, within the confines of a barracks or fort, rejected the plant as only worthy of being fed to the pigs, and some claimed that even the pigs rejected it. Of course it is not true, but it was part of the practice of denigrating anything associated with the indigenous people as being “savage” and unworthy.

Description of the Plant: lamb’s quarters, or sometimes called pigweed, can grow up to six feet tall, but generally grow to about three feet. There also is a prostrate species of pigweed that is very edible. Leaves are pinnate, alternately arranged, small, narrow at the base, and waxy. The flower head is conical, growing from the center of the plant. The stem is round with ridges running vertically.

Common Names: known as goosefoot, pigweed, and also wild spinach.

How, When, and Where to Gather: lamb’s quarters loves cultivated fields and crops, gardens, waste areas, roadsides and ditches, riverbanks, and other disturbed soils. They are native to North America. They tolerate most soils but have an affinity for nutrient-rich soils. They are listed as noxious weeds in many states and provinces. Pick the leaves in spring and early summer. Stems become woody as the summer progresses.

Health, Nutritional, and Medicinal Benefits: it is useful as an anti-anemic, astringent, antispasmodic, hepatoprotective, laxative,

vulnerary, anti-inflammatory, analgesic, anthelmintic, and antimicrobial.

While lamb's quarters often is used in soups or salads, due to its high Vitamin A and C content as well as folate and calcium, it has many medicinal uses in folklore. These include treatments to alleviate fever, nausea, headache, stomach ache, sore throat, diarrhea, internal ulcers, and even menstrual bleeding. It has been linked topically to folk treatments for tumors, warts, and sores.

Edible Parts: you can eat the leaves, flowers, and stems.

Look-Alike Plants (Poisonous and Not): Lamb's Quarters are in the amaranth family, and look similar to many other wild-growing species of that family. No toxic look-alikes are known.

Recipe: Lamb's Quarters Soup

Ingredients

3 pounds chicken wings

1 quart chicken broth

½ pulped avocado

2 teaspoons oregano

1 red onion sliced thin

3 stalks celery, chopped,

2 pounds lamb's quarters

1 teaspoon seasoning salt

½ teaspoon black pepper

2 teaspoons crushed garlic

1 teaspoon paprika or cumin

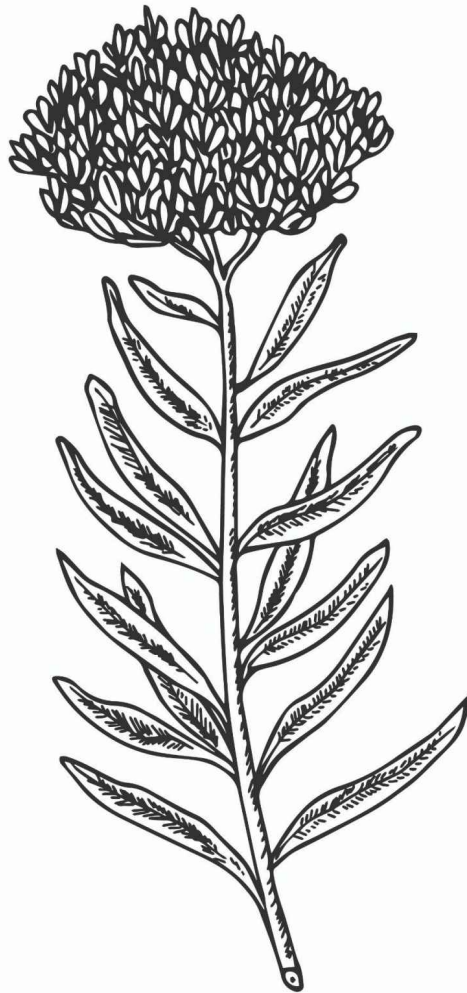
Method:

In a slow cooker, add chicken broth, wings, and two cups of water. Simmer for ten to fifteen minutes, then add avocado, oregano, onion,

celery, paprika, garlic, and salt. Simmer for another hour, until meat falls from the bones. Remove bones and strain mix to make sure no fragments of bone remain. Return to the crockpot, add lamb's quarters, and cook for five minutes.

CHAPTER FIFTEEN: MILKWEED

Latin Name: Asclepias tuberosa, Asclepias syriaca



In Greek mythology, milkweed was Asclepios' gift from Apollo, a plant that is vital to curing external wounds. Asclepios, the son of Apollo, was recognized as the god of healing. Yet, milkweed is considered to be quite toxic to humans. Perhaps it is because of

Apollo's reputation as a cunning god that this dichotomy between healing and destruction is found in one plant.

If only for its value to the monarch butterfly population, milkweed is a treasured plant. For the past century, farmers have viewed milkweed as a scourge of their crops, devoting intense efforts to eradicating this plant through the use of airborne chemicals and systemic herbicides.

But monarch butterflies only lay their eggs on milkweed and, without the plant, the monarch butterfly would become extinct. Still, huge swaths of farmland across the entire migratory path of the monarch butterfly no longer have milkweed, and the population of these beautiful insects is dropping precipitously.

Now, recognizing the peril to the only migratory butterfly in North America, gardeners and biologists are planting milkweed, hoping to assist the butterfly's recovery.

And, although milkweed is potentially poisonous to humans, it has wonderful medicinal properties when applied topically.

Description of the Plant: Milkweed grows to about five feet in height, but most commonly to about three feet. The leaves have a heavy, leathery look to them, are elongated oval and medium size, with a prominent midrib and tapered distal point. There usually are clusters of stout stems. Both leaves and stems exude a milky substance when broken. Flowers typically are in clusters. Leaves are the opposite. Flowers have five separate petals and five fused petals. They are greenish-pink to light purple. Seed pods are borne by the wind on dandelion-like tufts.

Common Names: it is also known as butterfly flower and silkweed.

How, When, and Where to Gather: milkweed, the mainstay for monarch butterflies, grows along the migration path of these insects in Canada and the United States. Only the west coast does not see a population of milkweed. Milkweed likes fence rows, roadsides, and

garden edges, but does not cultivate well. It often is found in field crops, prairies, and pastures. It has been targeted by systemic and aerial applications of herbicides due to its invasive nature in grain crops. This has contributed to a decline in Monarch populations in the grain belts. Pick the young leaves and shoots in early to mid-spring.

Health, Nutritional, and Medicinal Benefits: emetic, diuretic, anthelmintic, stomachic, antidiarrheal, and diuretic.

While milkweed commonly is thought of as the Monarch butterfly's egg-laying station or as a noxious weed by farmers, it has medicinal value both externally and internally. It is potentially poisonous when overused, but, externally, it is an effective treatment for warts, to treat swelling, rashes, ringworm, boils, wounds, headache, skin ulcers, and skin lesions. Internally, it has been used by native Americans to treat snakebite, respiratory ailments, heart conditions, gas and diarrhea, pneumonia, and lung inflammation.

Edible Parts: the young shoots and leaves can be eaten (boiled, cooked).

Look-Alike Plants (Poisonous and Not): dogbane and milkweed look similar before they flower, but milkweed can be mildly toxic if consumed. Purple loosestrife looks vaguely similar to milkweed, but it grows in different habitats.

Recipe: Almond-Fried Milkweed Pods

Ingredients

4 oz. milkweed seed pods

1 cup buttermilk

salt to taste

¼ teaspoon cayenne pepper

½ teaspoon ground nutmeg

½ cup almond flour

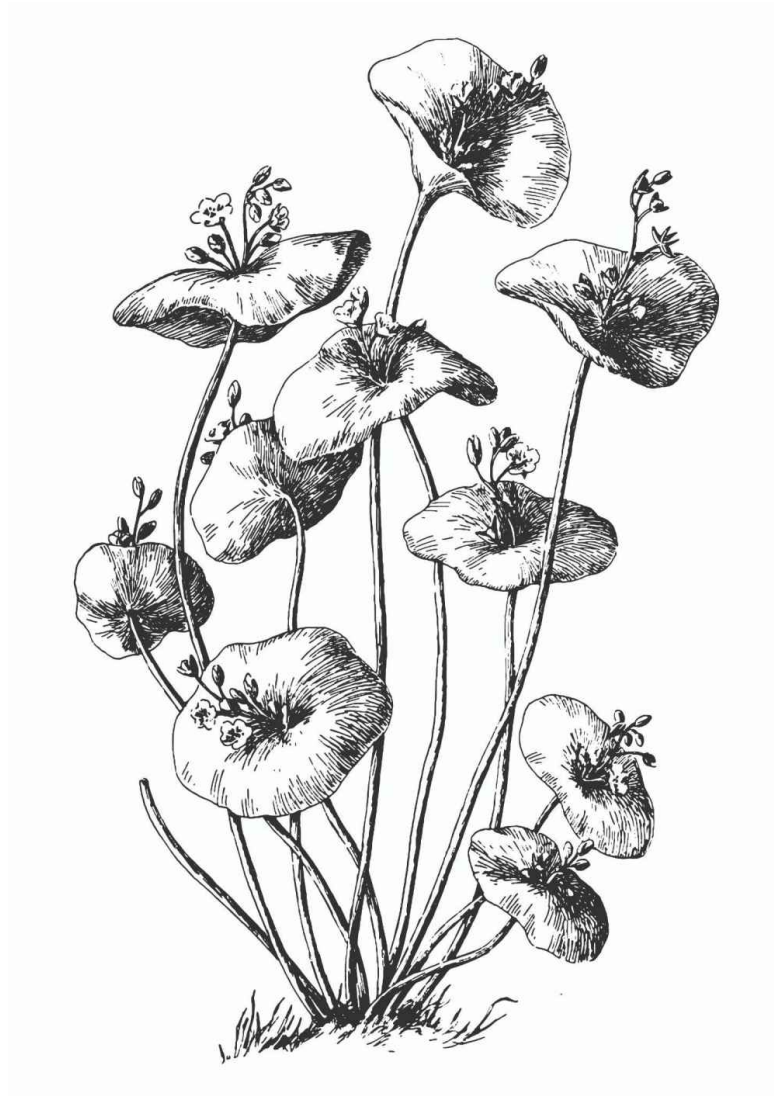
¼ cup crushed cereal, like Cheerios or similar

Method:

Blanch the milkweed pods in boiling water for two to four minutes. Remove, drain, and cool. Soak pods in buttermilk for one to two hours. Mix remaining ingredients in a bowl, remove pods from buttermilk, and drain. Toss in the spice mix and fry in avocado oil or grapeseed oil until the pods are golden brown.

CHAPTER SIXTEEN: MINER'S LETTUCE

Latin Name: Claytonia perfoliata



Sometimes a name reveals the folklore behind a plant. Miner's lettuce is one such plant. Its name comes from its use as a salad ingredient for miners in the western states and British Columbia, where it was one of the first greens to emerge in the spring. Its coarse nature reminds you that it, like rhubarb and burdock leaves,

is prone to accumulating oxalates which can be toxic when consumed in large quantities.

Yet, prior to its adoption by the miners of the Pacific mountains, indigenous Americans already had embraced the plant, endowing it with mythical powers. To inject it with the formic acid from ant bites, they placed the plants on ant hills prior to consuming them, looking to capture the sting of the ant before heading out to hunt or fight. Like many aspects of their lives, North American Indians felt that the gods of the Earth were found in everything around them.

Description of the Plant: the leaves of miner's lettuce look similar to those of nasturtium, only smaller. They are almost disc-shaped, and less than an inch across. Leaves are borne on thin stems that have a slightly peppery taste. The plant grows low to the ground with immature stems. Flowers grow from what appears to be the center of the leaf and are very small and white.

Common Names: it is also called winter purslane and "Indian lettuce".

How, When, and Where to Gather: miner's lettuce grows mostly along the west coast and northern Mexico, as far east as Wyoming and Alberta. Being a cool-season, early spring plant, it prefers the altitudes of the foothills and medium elevations, but its season is short. It is most abundant in California and Oregon. Miner's lettuce, being a cool-weather crop, is only suitable for picking in early to mid-spring.

Health, Nutritional, and Medicinal Benefits: it is used as an antioxidant, laxative, diuretic, and also antirheumatic.

Although Miner's lettuce is popular as a salad green, and is high in Vitamin C and antioxidants, it also works as an appetite restorer, a laxative, general tonic, a blood purifier, and liver detoxifier. Use it in a poultice to treat rheumatic pain.

Edible Parts: you can eat the blossoms, stems, and leaves.

Look-Alike Plants (Poisonous and Not): dollar weed is a toxic look-alike of miner's lettuce, but it is not as common.

Recipe: Beet & Miner's Lettuce Salad

Ingredients

2 cups washed miner's lettuce leaves

1 cup coarsely diced, cooked, or pickled beets

1 cup mixed citrus fruit, chopped into quarter-sized pieces

½ cup plain or flavored yogurt

½ teaspoon cinnamon

1 tablespoon cane sugar

2 tablespoons vinaigrette dressing

Method:

Mix all ingredients except cinnamon and cane sugar. Sprinkle the last two ingredients on top of the salad right before serving.

CHAPTER SEVENTEEN: NIPPLEWORT

Latin name: Lapsana communis



While “nipplewort” may seem to be an awkward common name for a plant, one of its other names, “Pilewort,” is even more cringeworthy. This is the lesser celandine, a delicately-flowered plant with blooms like its cousin, the buttercup, that look like the sun on a stem.

Although it has a long pedigree of curing a range of ailments, its mythological reputation as a source of joy and cure for depression is more in keeping with its bright appearance.

Nipplewort gets its name from its application to induce cows to provide more milk, while the pilewort's moniker is from, of course, its use as a treatment for hemorrhoids.

Description of the Plant: because it is a member of the sunflower family, it has many similar characteristics, including the sunflower or aster style of flower, with yellow petals in a circle around a collection of smaller florets (up to 700). When the plant emerges in the spring, it will have a bouquet look to it, with a rosette of leaves with one large terminal lobe and several smaller ones below. Then, the plant will bolt from its center, like a spinach plant bolting in the heat. Flowering occurs mid to late summer. Leaves are slightly toothed and rounded, thin and ovulate, pinnated. They look like small versions of an oak leaf, but the edges are somewhat serrated.

Common Names: it is also called the western rattlesnake root, wall lettuce, yellow spit, and even swallow wort.

How, When, and Where to Gather: nipplewort grows well in moist, shaded areas. Nipplewort is found in woods, fields, and disturbed sites like abandoned homesteads. It grows in much of temperate North America, and is more common in humid areas. Pick the shoots in spring and the leaves no later than early summer.

Health, Nutritional, and Medicinal Benefits: it is antiseptic and calming.

Nipplewort, as the name crudely suggests, is used to staunch the flow of breast milk. It also is used as a calming agent, helps with urinary tract infections, and treats kidney disease.

Edible Parts: you can eat the leaves and the shoots.

Look-Alike Plants (Poisonous and Not): there are no true look-alikes of this plant, but its flowers closely resemble dandelion

flowers.

Recipe: Nipplewort and Butternut BBQ Fry

Ingredients

2 cups butternut squash

1 teaspoon nutmeg

salt and pepper to taste

2 cups nipplewort leaves, washed and blanched

¼ cup butter, cubed

¼ cup olive oil

Method:

Cube squash into one-inch cubes. Mix with nutmeg, salt, pepper, nipplewort, and butter. Pour into a loaf pan or heavy foil “boat.” Add olive oil and seal with foil. Barbeque for twenty minutes, turning occasionally. Uncover for five minutes to sear squash.

CHAPTER EIGHTEEN: PLANTAIN

Latin Name: Plantago major



While many herbs have strong associations with religion, mythology, or even witchcraft, the poor, trod-upon, overlooked common plantain only manages brief references in witches' brews and Wiccan beliefs, and that is as a beneficial plant. Its only other common name in witchcraft is white man's foot. The name comes,

not from its appearance, but from the general neglect of people who crush the plant underfoot.

Description of the Plant: common plantain is easily distinguished, after the first time you identify it. The leaves are broad and medium to dark green with prominent veins. The plant forms basal rosettes of these leaves and the plant rarely exceeds a few inches in height. In the late summer, the green flower spike forms, followed by seeds along this three or four-inch stem. The seeds turn brown as autumn arrives.

Common Names: it is known as broadleaf plantain and common plantain.

How, When, and Where to Gather: common plantain leaves reach maturity in mid-summer. They start later in the spring. They can be harvested throughout the growing season, but the seeds are not ready until late summer and early autumn. Find them wherever the soil has been disturbed, in fields and gardens, along pathways where people walk often, along roadsides, in gravelly, marginal soil to rich, well-drained soil.

Health, Nutritional, and Medicinal Benefits: tonic, emollient, anticatarrhal, vulnerary, expectorant, anti-inflammatory, refrigerant, diuretic, deobstruent, and antibacterial.

The leaves form excellent bandages on wounds, healing and protecting them. Plantain is an effective topical treatment for cuts, bites and stings, rashes, and bruises. It is used for treating coughs, inflammation, and infections. It also is used to treat burns, ulcers, and urinary tract infections.

Edible Parts: you can eat the leaves and the seeds (psyllium). Common plantain leaves are used in soups and stews, and very young leaves are used in salads, but have a texture like kale. The seeds (psyllium) are used as thickeners in soups and a partial substitute for starch.

Look-Alike Plants (Poisonous and Not): there are almost no look-alikes for the very distinctive common plantain. The closest that grows in a similar habitat and range would be the young sow thistle, but it grows much taller. Some varieties of plantain species also exist across North America.

Recipe: Broadleaf Plantain Chips

Ingredients

3 cups washed plantain leaves

salt to taste

sesame oil

Method:

Blanch plantain leaves for three to five minutes, scatter on an oven or air fryer wire rack to drain, and spread leaves out as much as possible without breaking them. Spritz them with sesame oil and sprinkle salt over the top. Cook at 400°F in an air fryer for eight minutes, or in the oven at 325°F for fifteen to twenty minutes until the leaves are crisp and curled.

CHAPTER NINETEEN: PURSLANE

Latin Name: Portulaca oleracea



In ancient times, purslane, or wild portulaca, was scattered around a bed to protect against evil spirits. It falls under the influence of the moon, and is associated with the Greek goddesses Phoebe and Aramis, and the Roman goddess Diana.

Description of the Plant: purslane grows low to the ground on immature stems that look more like vines. Leaves are small and succulent, thick-looking, green, and oval in shape. Stems are reddish in color. The flowers are small and yellow. It is an annual that grows like a mat or carpet. It is considered invasive in many states and provinces and can be difficult to eradicate in rich soils. It is found around the world in temperate climates.

Common Names: it is known as little hogweed and wild portulaca.

How, When, and Where to Gather: purslane grows in full sun in almost any soil and invades lawns, gardens, and field crops easily. Purslane leaves should be harvested in late spring and early summer, along with flower buds. The seeds in late summer have a peppery taste.

Health, Nutritional, and Medicinal Benefits: it is a purgative, cardiac tonic, emollient, muscle relaxant, anti-inflammatory, and diuretic.

Although it is considered a weed, purslane has many medicinal and nutritional uses. It is used to treat burns, intestinal problems, headaches, liver issues, cough, arthritis, blood health, and diabetes. It is exceptionally high in Omega-3. It can help prevent stroke and heart disease.

Edible Parts: you can eat the leaves, flower buds, and stems.

Look-Alike Plants (Poisonous and Not): spurge, another noxious weed, looks very similar to purslane but is poisonous. Spurge stems are not as thick, and the leaves are smaller and not succulent in appearance.

Recipe: Tomato, Cucumber, and Purslane Salad

Ingredients

- 1 cucumber, peeled, sliced, and slices halved
- 2 medium tomatoes, chopped into ½ inch bites
- 1 bunch purslane, coarsely chopped

1-2 tablespoons fresh oregano, chopped

1 tablespoon lemon juice

¼ cup plain yogurt

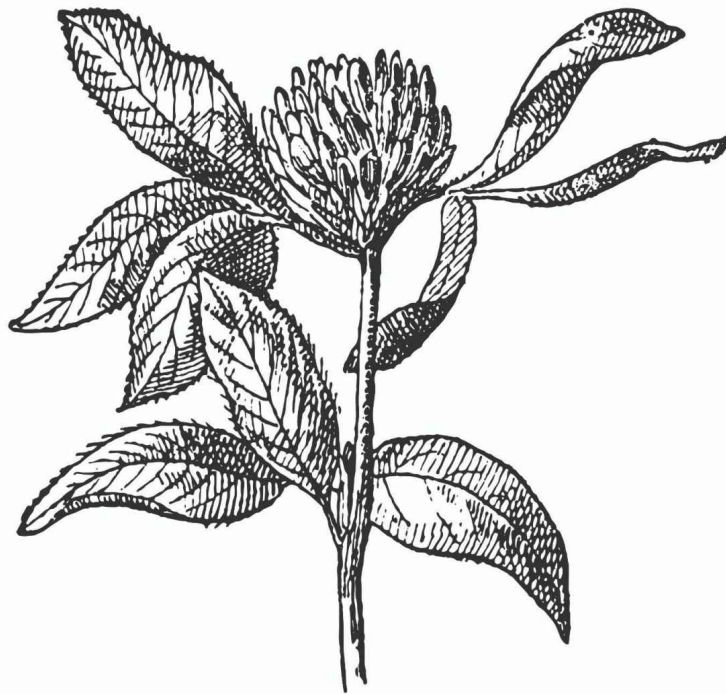
2 teaspoons cane sugar

Method:

Mix cucumber, tomato, and purslane in a bowl. Blend lemon juice, yogurt, oregano, and sugar. Pour over salad vegetables and serve.

CHAPTER TWENTY: RED CLOVER

Latin Name: Trifolium pratense



Very similar in look to the Irish 'shamrock' (*trifolium repens*), Red clover has both a spiritual and mythical history, with ancient Celts believing that the three leaves represented the goddess Bridget's status as maiden, mother, and crone, while St. Patrick used the

shamrock to represent the Father, Son, and Holy Ghost. The fourth leaf of rare sprigs represents faith, hope, luck, and love.

As the name “shamrock” was abandoned in parts of the western world, in favor of the name “red clover,” mythology arose around that term too. Patches of clover in lawns and fields became havens for fairies, while witches were terrified of them. Even stories of Eve and Eden claim that, when she was expelled from Eden, she carried a sprig of four-leaf red clover with her. That became the basis for the legend that she carried a small bit of paradise with her.

Yet, the truth about red clover actually may be more powerful than any fable. It possesses incredible health and nutritional benefits.

Description of the Plant: red clover is a biennial or short-lived perennial with the typical clover three-leaf arrangement. It has a small ($\frac{1}{2}$ inch) purple or red flower head, looking something like a small bath scrubbing pompom. Flowers are very attractive to ants and bees. Several stems grow from the woody root, with the green leaves having an identifiable, conspicuously veined, white V across the leaf. Flower stems are long and thin.

Common Names: it is also known as purple clover and meadow trefoil.

How, When, and Where to Gather: red clover is a European plant that has naturalized in North America. Being a legume, it can grow in soils that are not nitrogen rich. Unfortunately, it grows well alongside corn, making it a noxious weed. Red clover does well in cool conditions, well-drained, loamy soil, wet to dry meadows, forest margins, and elevations under 8,500 feet. Its range is the eastern and central half of North America. Red clover flowers are available throughout the summer. Leaves should be picked early in the summer or throughout the spring.

Health, Nutritional, and Medicinal Benefits: alterative, antispasmodic, expectorant, sedative, phytoestrogenic, and nutritive.

Red clover is used to treat menopause symptoms, osteoporosis, asthma, whooping cough, gout, cancer, high cholesterol, bronchitis, eczema, arthritis. Red clover contains calcium, chromium, magnesium, niacin, phosphorus, potassium, thiamine, isoflavones, and Vitamin C.

Edible Parts: you can eat the flower and the leaves (early season growth).

Look-Alike Plants (Poisonous and Not): there are a few non-clover look-alikes, like vetch, and thistle which have a similar flower but a distinctly different leaf appearance. None are poisonous.

Recipe: Red Clover Lemonade

Ingredients

3 cups clover blossoms

6 tablespoons honey

4 cups water

1 cup lemon juice

Method:

In a saucepan, simmer clover and water for ten minutes, let cool in the refrigerator. Strain, add lemon juice and honey to the drink mix, and stir. For added flavor, sprinkle a little allspice on top of each cup.

CHAPTER TWENTY-ONE: SHEEP SORREL

Latin Name: Rumex acetosella



An old love potion says that, on St. Luke's Day, you should take some marigolds, thyme, a little dirt, and sheep sorrel, rub them together, then cook it over a slow fire with vinegar and honey. Then, you are to anoint yourself with this concoction before you go to bed, and chant, "St. Luke! St. Luke! Be kind to me! In my dreams let me

my true love see!” There’s no certainty that this potion worked, but it certainly would have had some topical medicinal benefit.

Description of the Plant: sheep sorrel grows with a clump of long, arrow-shaped leaves arranged as a rosette from the root rhizomes under the ground. Leaves grow alternately and vary in size. Each rosette forms an upright, cone-shaped rosette of reddish flowers, each cluster on a separate stem. Male and female flowers are on separate plants, which bloom from May to October. It spreads quickly in acidic soils. Leaves have a tart, almost lemony taste.

Common Names: it is known as field sorrel and sour dock.

How, When, and Where to Gather: sheep sorrel prefers open disturbed areas, meadows and fields, pastures, utility corridors, road and rail rights-of-way, and even overgrown lawns and homesteads. It likes acidic, sandy soil or gravel, grasslands, and does not like shade. It has been naturalized to North America and now is found throughout the continent. Try to pick the leaves before late summer, as they tend to get tough, like kale. Younger leaves have a more astringent, sharp, almost lemony taste. The small seeds act as a moderate thickener for soups.

Health, Nutritional, and Medicinal Benefits: anticancer, diuretic, antioxidant, detoxifier, laxative, anti-inflammatory, diaphoretic, diuretic, refrigerant, and astringent.

Sheep sorrel, like garden sorrel, is employed as a treatment for scurvy, cancer, diarrhea, inflammation, nasal passage swelling and pain, bacterial infections, and as a diuretic.

Edible Parts: you can eat the leaves, seeds, and roots.

Look-Alike Plants (Poisonous and Not): the leaves are similar to field bindweed, which is a noxious weed but not toxic. In fact, the oxalates in sorrel can cause serious gastric distress if eaten in large quantities.

Recipe: Creamy Sorrel Soup

Ingredients

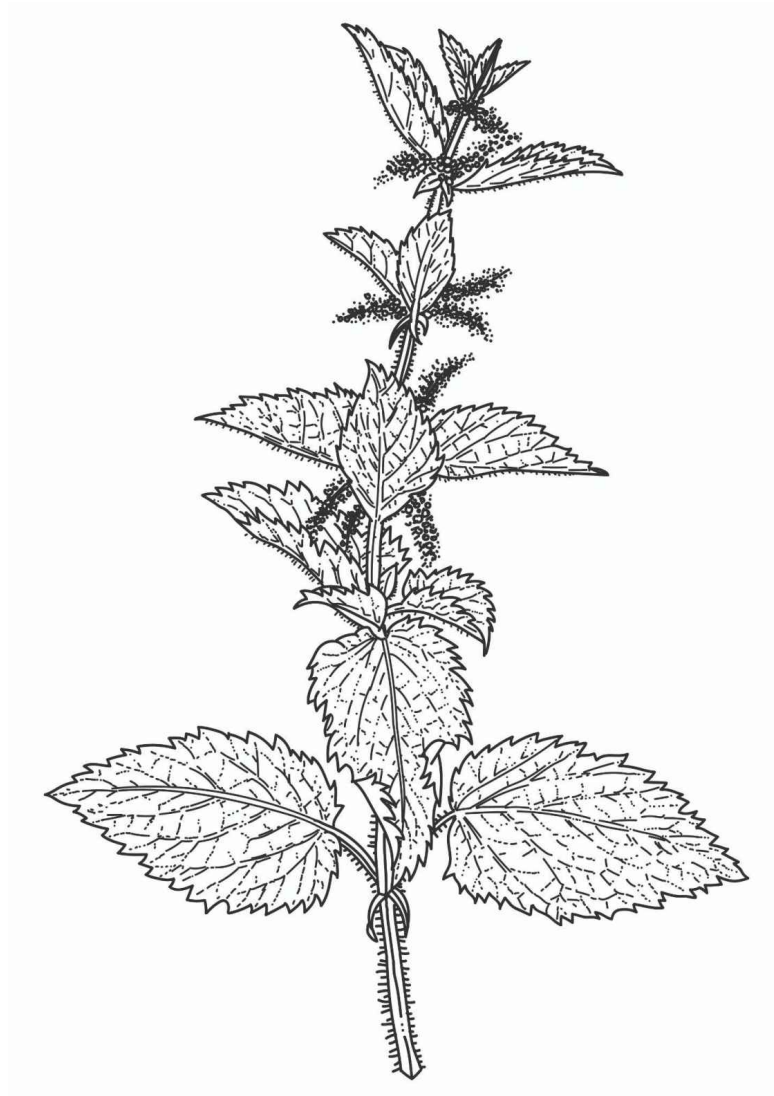
4 tablespoons butter
½ cup diced white onion
3 tablespoons flour
4 cups vegetable stock
6 cups chopped sorrel
¼ teaspoon salt
¼ teaspoon pepper
¼ teaspoon turmeric
2 egg yolks
½ cup cream

Method:

In a small pan, slightly caramelize the onions. In a soup pot, add the stock and bring to a simmer. Add the sorrel, onion, and spices and cook, covered, for ten minutes. Mix flour with a little cold water and add, stir, then simmer the soup for another 2-3 minutes. Let it cool in the refrigerator. Blend until smooth. In a bowl, whisk the egg yolks and cream together. Blend a bit at a time with the sorrel soup. Serve hot or cold.

CHAPTER TWENTY-TWO: STINGING NETTLE

Latin Name: Urtica dioica



There are a few plants whose folklore and historical medicinal uses are remarkably similar to the folklore and cures of the same plant continents away, even though the two cultures never came in contact with each other. Nettle is one of them.

North American indigenous tribes told tales of the nettle as being nature's trickster, and they compared it to the coyote, devious and sly. Half a globe away, Scottish and Irish folklore referred to it as a cure for the sneaky attacks of elves, inflicting inexplicable sharp pains on them. The presence of nettle beds meant that fairies were nearby, and the nettles would catch their mischievous antics before they harmed humans. In ancient Norse mythology, Loki, the trickster god, made his fishing nets from nettles.

At the same time that North American Indians were weaving clothes from nettles to combat joint pain and arthritis, tribes in other regions and cultures in Europe and Asia were practicing urtification, or beating one's limbs with stinging nettle branches to cure aches and pains.

And, around the world, virtually everyone used nettle for the same health benefits and medicinal cures. This speaks to the strong likelihood, if not proof, that the plant has valid and effective curative properties, whether science has caught up with proving this accepted fact or not.

Description of the Plant: stinging nettle's most distinguishable feature is the fine hairs along its stems and the underside of mature leaves. Innocent-looking, they pack an incredibly irritating sting or itch. The leaves are tapered, with saw-tooth edges and divergent veins in the leaf. The plant grows to an excess of three feet in height.

Common Names: it is known as the common nettle.

How, When, and Where to Gather: while stinging nettle grows throughout the world, it is very common in most regions of North America. Nettle grows very well in damp, nitrogen-rich soils, along river and stream flood plains, old farmsteads, edges of woods including evergreen stands, and in full sun to partial shade where there is lots of humus matter and fertile soil. To avoid stings from the mature stems, harvest leaves early in the spring and summer, before

they reach mature height. The mature leaves need to be cooked to avoid the stings that will be present on the hairs, mostly transferred from the stems.

Health, Nutritional, and Medicinal Benefits: anti-inflammatory, diuretic, antiseptic, mild hypoglycemic, diuretic, anti-hemorrhagic, hemostatic, detoxifier, vasodilator, circulatory stimulant, hypotensive, nutritive, galactagogue, astringent, expectorant, anti-allergic, reduces BPH, and is an anti-rheumatic.

Stinging nettle has a wide array of topical and internal medicinal uses, including treatment for gout, anemia, muscle pain, joint pain, enlarged prostate, enlarged spleen, ear and eye ailments, ulcers, and arthritis. It decreases swelling, and treats diabetes, kidney stones, and hay fever.

Edible Parts: you can eat the young leaves, stems, and roots.

Look-Alike Plants (Poisonous and Not): there are no known poisonous look-alikes for the stinging nettle.

Recipe: Stinging Nettle Smoothie

Ingredients

2 cups stinging nettle leaves, steamed or blanched

½ cucumber, peeled

1 cup coconut milk

1 avocado

2 bananas, overripe

1 cup lemon yogurt

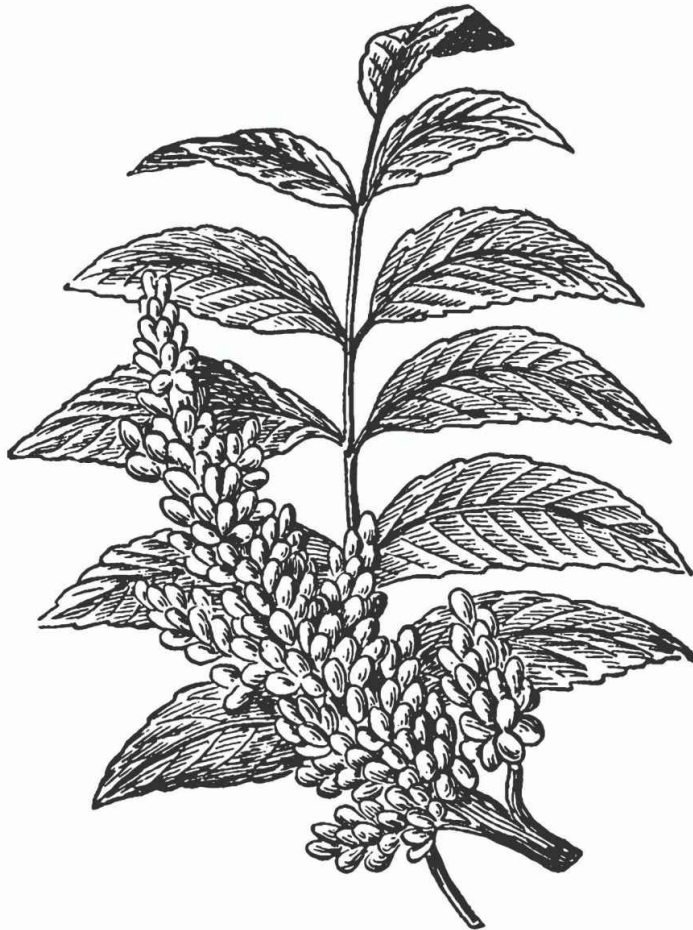
1 cup pineapple

Method:

Blend all ingredients until nice and smooth, adding more yogurt as necessary for the sake of taste and consistency.

CHAPTER TWENTY-THREE: SUMAC

Latin Name: Rhus typhina



Staghorn sumac gets its name from the velvet on its stems and underside of the leaves, like the velvet on a stag's antlers in the summer.

But, native folklore also tells how the deer and elk love to conceal themselves in the fiery reddish-brown foliage of the shrub during the

fall rut. The story says that the tree protects them, deceiving predators when its dry, red leaves rustle in the wind, sounding like the rustling and cracking of the stag's antlers rubbing together. The wolves, who are drawn to the sound of the leaves, are lured away from the deer, so they can carry on with their mating.

If not grounded in truth, the story still makes a wonderful children's tale.

If ever there was a need to comprehend the different varieties of plants, know the difference between sumacs. Of the trinity of poisonous plants in North America—poison ivy, poison oak, and poison sumac—sumac is the most poisonous. It looks very much like the more common staghorn sumac, except mature shrubs are smaller, and the poisonous variety grows in very wet conditions. One has the potential to kill, or make humans incredibly ill, the other is a wonderful healing and salubrious plant.

Description of the Plant: Sumac and poison sumac look similar, but, aside from habitat, there are some differences. Both have compound leaves with tapered leaflets, but the poison sumac leaf edges are smooth, while the staghorn sumac's opposite leaflet is toothed. Staghorn has nine to thirty-one leaflets, while poison sumac has, at most, unlucky thirteen. The twigs on staghorn sumac have soft hairs, while the poison sumac is smooth. Staghorn berries are round, packed tightly together in an upright tuft. Staghorn sumac grows up to twelve to twenty feet tall. The berries persist throughout the winter and leaves turn a scarlet red in the fall.

Common Names: It is known as sumac, staghorn sumac, scarlet sumac, and sumach.

How, When, and Where to Gather: Staghorn sumac and poison sumac are not the same, and grow in different habitats and terrain. Staghorn sumac grows in open areas and likes drier soils, while poison sumac prefers marshy, shaded areas. Staghorn grows on the

prairies, open grasslands, old fields and abandoned yards and homesteads, roadsides, fencerows, shelterbelts, and field crop headlands. It grows south to Georgia. West to the Mississippi River valley, central plains of the Dakotas, Kansas, Utah, and the south of Manitoba, Saskatchewan, and Alberta. It grows in all Canadian provinces east of Manitoba.

Fruit is harvested in the late fall. Berries are harvested in winter, after a heavy frost, and they develop a sweet, tart taste.

Health, Nutritional, and Medicinal Benefits: it is an astringent, antiseptic, alterative, tonic, refrigerant, diuretic, emmenagogue, diaphoretic, cephalic, antidiarrheal, antioxidant, antifungal, and also anticancer.

Sumac, like mountain ash, is a mainstay food source in winter as the berries remain on the trees well into the cold season. Being very rich in antioxidants and Vitamin C, it is used to treat colds, sore throats, asthma, fever, hypoglycemia, and as an ointment or salve on open wounds.

Edible Parts: you can eat the berries (fruit).

Look-Alike Plants (Poisonous and Not): tree of heaven and poison sumac are two sumac look-alikes. Mountain ash has similar leaves and often is misidentified as sumac. Poison sumac is part of the trifecta of poisonous plants, ivy, oak, and sumac, but is, by far, the most dangerous. It grows, however, in swampy areas and is relatively uncommon.

Recipe: Staghorn Sumac Cocktails (Alcohol-Free)

Ingredients

Base:

2 cups sumac berries

4 cups water

Mix:

2 cups varied dark fruit (raspberries, strawberries, blackberries, blueberries)

3 cups tonic water or ginger ale

¼ cup orange juice

Mint or sage

Method:

Mash sumac berries in water, and let stand for four to six hours in the fridge. Remove and strain. Put varied berries in the bottom of the pitcher and mash lightly. Add sumac base and orange juice. Stir and add tonic water as the mix is still swirling. Put crushed ice in cups and pour the mixture into each cup, topping with a sprig of mint or sage.

CHAPTER TWENTY-FOUR:

SUNFLOWER

Latin Name: Helianthus spp.

It is difficult to define or describe sunflowers, simply because there are so many members of this family growing wild and domesticated. Yet, the mythology and lore surrounding these bright and cheery plants extend back to the peak of Greek civilization, and the value of sunflowers exposing themselves in unique ways.

A stranded motorist traveling in the Saskatchewan prairies a few years ago, found himself caught in a late October snowstorm. In an adjacent field was a quarter-section of sunflowers, not yet harvested. During the peak of the storm, he cut dozens of heads of sunflowers, stacked them, and built a warming fire, burning strong because of the high oil content in the seeds. It was a very practical use for a flower steeped in fairy tale mythology.

While the stranded traveler may have worshiped the sunflower during the frigid blizzard, the Greeks revered sunflowers as symbols of loyalty and adoration.

The myth is one of unrequited love. A young water nymph in love with Apollo spent endless days pining after him as he traveled across the skies, but he took no notice. Other gods did, however, rooting her into the soil where she stood, so that she could receive nourishment while she followed the sun. She became a sunflower, her yellow face always turning towards the sun.

Description of the Plant: the most identifiable part of the sunflower is its bright, face-like seed and flower head. The many varieties of sunflower also have a great diversity of sizes, from as short as eighteen inches to well over seven feet tall, with the biggest recorded

at over thirty feet. The flowers, with their ring of bright tapered petals and center reproductive florets, may be yellow, white, red, orange, or purple. The heads may be as small as a few inches in diameter, or over a foot across. There may be over 1,000 florets, which each produces a single seed. The stems are hollow (pithy), woody, and round with vertical ridges. Leaves are pinnated, oblong, and pointed at the end. Flowers bloom from mid-summer to early autumn, with the outer petals remaining while the floret produces its seed and the seed matures. Unless consumed by birds, bears, raccoons, or skunks, the seed heads will remain well into the winter.

Common Names: it is also known as a giant aster.

How, When, and Where to Gather: sunflower varieties grow domestically and wild throughout almost all of North America, including southern Alaska, Yukon, and Northwest Territories. It likes prairies, grasslands, dry, sunny, and open areas, edges of cropland, and old homestead yards. It can grow well in moist, disturbed soils. Many domestic varieties now grow wild and are known as “volunteer” sunflowers. Seed heads can be harvested in early autumn, after they have ripened and dried. Roots may be harvested from late summer through early winter, while leaves are best harvested in early to late spring. Stems may be consumed at any time, but are best in early to mid-summer. Flowers may be picked in early to mid-summer.

Health, Nutritional, and Medicinal Benefits: antioxidant, antimicrobial, anti-inflammatory, antihypertensive, wound-healing, cardiovascular, diuretic, and expectorant.

The sunflower, like the cattail, is exceptionally versatile. Both are used for heat, with the sunflower seeds providing oil and thick stalks for fuel. Both are rich in nutrients and healthy starches. Sunflower infusions were used for chest pains and pulmonary issues. The seeds were sometimes used as a stimulant, providing energy to voyagers on long treks. It is used to treat fevers, coughs, and colds, to cauterize wounds, and as a kidney or bladder cleanse.

Edible Parts: you can eat the root, young leaves, seeds, flower petals, and stems.

Look-Alike Plants (Poisonous and Not): there are many sunflower varieties and, consequently, many look-alikes, but none are toxic.

Recipe: Grilled Sunflower Heads

Ingredients

1 large immature sunflower head (seeds not hardened and ripe)

3-4 slices bacon, cooked and crumbled, bacon fat retained

¼ cup avocado oil

¼ onion, diced fine

1 tablespoon red chili flakes

2 cloves garlic, chopped fine

salt to taste

Method:

Mix together bacon fat and oil. In a large roasting pan, set sunflower head, sprinkle bacon pieces, onion, and garlic over the head. Top with chili flakes and salt. Spray oil over the head generously. Barbeque covered for twenty minutes, then remove, and spritz with lemon juice.

CHAPTER TWENTY-FIVE: THISTLE

Latin Name: Silybum marianum (milk thistle), Cirsium arvense (canada thistle)



This flower finds itself at the center of numerous mythological tales and the folklore of many countries. In Scotland, it signifies devotion and bravery. In the Basque region of France, it is the herb of witches. A garland of thistle or a bunch hung over a doorway protects against their evil influence. Before the crown of brambles that Christ wore, a

crown or cape of thistles was seen as punishment, but also of healing and strength.

There are more than 200 species of thistle worldwide, 58 in North America alone. The most commonly grown type for medicinal use would be the milk thistle, closely followed by the sow thistle (a member of the aster family, similar in appearance to the dandelion) and the Canada (creeping) thistle.

All thistles have been common staples in early North American indigenous diets. As some species from Europe found their way into the wilds of Canada and the United States, indigenous folks embraced them for their medicinal properties, as they did with scores of other plants that found their way across the ocean.

The national flower of Scotland, the spear thistle, is now more common in North America than in Scotland, but it has been present in the New World for less than 350 years.

Description of the Plant: milk thistle's identifying marks are the white veins on its prickly, bright green leaves. Flower heads are bright purple with spiny bracts around the flower base. Leaves and stems all have stiff spines. Sow thistle is a tall plant (three feet), with few branching stems except near the top where the flowers occur. Blooms look like smaller dandelion flowers. The leaves are alternate, odd pinnate, becoming smaller as they approach the top. Their prickles are soft. Canada thistle has prickly stems and stalkless leaves. Flowers are smaller than other thistles. There are no spines on the many bracts at the base of the flowers. It grows up to four feet tall. Russian thistle is otherwise known as tumbleweed.

Common Names: it is known as milk thistle, sow thistle, Canada thistle, creeping thistle, California thistle, and field thistle.

How, When, and Where to Gather: the many varieties of thistle in North America mean that thistle grows in a variety of locations and soil conditions. They will grow in moist to dry spots, urban and rural

areas, disturbed sites such as wastelands, old homesteads and yards, roadsides, ditches and utility rights-of-way, trails, logging roads, vacant land, pastures, and cultivated farmland. They generally are designated as noxious weeds. Thistle from Europe has naturalized across all of North America, along with native species. They prefer sunny, open areas and thrive around manure piles.

Harvesting periods of the thistle depend upon the part of the thistle you are foraging. Roots may be harvested throughout the growing season and well into winter. However, as the season progresses and if the plant is growing in gravelly, dry conditions, the roots will be smaller, tougher, and more bark-like. Older plants (older than two years) will have larger roots, while this year's growth will have small, more tender roots. The seed pod or heads can be harvested in mid to late summer, a week or so after the flower has bloomed and before the "parachutes" on the seed develop and the seed pod breaks open. The leaves are best picked no later than early summer, as they tend to develop larger prickles and become more veiny and tough. They develop a bitter taste as the summer progresses.

Health, Nutritional, and Medicinal Benefits: anti-diabetic, anti-cancer, and antioxidant.

Milk thistle is used as liver treatment for cirrhosis, jaundice, and hepatitis, to lower cholesterol, manage Type 2 diabetes, and treat gallbladder disorders. Thistle has antioxidant properties and is used to treat heart disease.

Edible Parts: you can eat the root (peeled), stems (peeled), seed head (medicinal), and flower base (and flower, in some varieties).

Look-Alike Plants (Poisonous and Not): many thistles look similar, but some have softer spines on their leaves than others. Even dandelions have a similar leaf to a sow thistle. Hemlock has a similar growth pattern and looks somewhat alike, but has more fern-like leaves. You should know it is also deadly poisonous!

Recipe: Thistle in Almond Sauce

Ingredients

2 cups thistle leaves, cleaned with hard veining removed

1.5 teaspoons garlic powder

1/3 teaspoon pepper

salt to taste

3 tablespoons almond flakes or crumbled walnuts

1 cup almond flour

1/2 cup parmesan cheese

Method:

Cook thistles in two cups of water until tender. Drain, and cool the liquid. Add in garlic powder, pepper, and salt, stirring. Blend in almond flour until no lumps appear. Simmer for several minutes, stirring often to avoid scorching. Once it thickens, pour over thistle, then stir in parmesan and top with almond flakes. You may spritz with a little lemon for more zest and tang.

CHAPTER TWENTY-SIX: VIOLET

Latin Name: Viola odorata



Did you know the Greeks and Romans associated violets with death and funerals? They scattered them around tombs, and as a symbol of innocence, they blanketed children's graves with the flowers. The hope was that the children would rise quickly to the heavens.

The common moniker for the violet—johnny-jump-up—arose from how quickly this little bloom sprouts in the spring, almost appearing to jump out of the soil. Wild violets do emerge quickly and propagate abundantly in open meadows, but they do not invade spaces in the way that many weeds do.

Description of the Plant: there are over 600 species of violet, none are toxic. They have heart-shaped, scalloped leaves, but a few are alternate linear or palmate. They are mostly smaller plants. Flowers have five petals, two swept upward, two to the sides, and one broad petal downward. Seed pods look somewhat like small pea pods, with five per flower head.

Common Names: viola, Johnny-jump-up.

How, When, and Where to Gather: violets are native to most areas of North America, primarily in central and eastern Canada and the United States. They are found in Europe, but are not as common as in North America. There are many species of violets, all non-toxic and mostly edible. They prefer shady, moist, fertile soil but often are found at the edges of lawns (johnny jump-ups and violas). The flowers appear delicate but are very hardy and even cold-tolerant. They grow in many environments, including woodlands, dry desert conditions, and marshy areas. Violet flowers produce well in early spring to mid-summer. Leaves remain relatively tender and flavorful throughout the growing season. Seeds, although edible, are very small and difficult to gather.

Health, Nutritional, and Medicinal Benefits: it is an anti-inflammatory, antimicrobial, demulcent, expectorant, lymphagogue, vulnerary, antitumor, antirheumatic, diuretic, and also used as a laxative.

Violet flowers often accompany lavender and chamomile in sachets to be placed under pillows and induce sleep. It is a sleep aid when used as tea. The petals ease inflammation externally, soothing

skin irritations, sores, puffy eyes, and even hemorrhoids. Violet also is good for the lymphatic system.

Edible Parts: you can eat the leaves, flowers, and seeds.

Look-Alike Plants (Poisonous and Not): lesser celandine has similar leaves to violet and is poisonous, but it has yellow flowers that look nothing like the blooms of the violet plant.

Recipe: Violet Ice

Ingredients

2 cups violet flowers plus 1 cup violet flowers

3 cups water

3 tablespoons cane sugar

juice from 1 lemon

Method:

Simmer two cups of violet flowers and sugar in water for five to seven minutes. Remove and let cool. Stir in lemon juice. Pour mixture into ice cube trays, then add one or two violet flowers to each cube. Freeze. Serve with fruit fizzy cocktails.

CHAPTER TWENTY-SEVEN: WILD GARLIC

Latin name: Allium ursinum

Dracula and vampires were merely literary extensions of the belief that garlic could ward off the evil spirits and influences that the medieval world believed caused illness. This recognition of the power of garlic extends worldwide, wherever garlic grows.

Garlic is either a lifesaver or protector against demons (according to lore), a stinky and useless root or an amazing pantry of health benefits (according to the consumers' personal bias). Regardless, people have relied on it for use in thousands of recipes for flavor and scores of medicinal and health benefits, for nearly five thousand years of documented history.

Its power to ward off illness exceeds that of the apple, in the old saying, "an apple a day keeps the doctor away." The Welsh slogan, "Eat leeks in March and garlic in May. Then the rest of the year, your doctor can play," sums up belief in its preventative power over disease.

Description of the Plant: wild garlic leaf is shaped like a long willow leaf, narrow at the base, flying slightly, and tapered to a point at the apex. It is a bright green color. They grow from the base of the plant, with several growing randomly out. The flowers are small and white, star-shaped, several growing from numerous stalks at the top of a stem. The garlic is easily identified by its pungent smell.

Common Names: it is also called wild cow leek and bear garlic.

How, When, and Where to Gather: wild garlic is native to North America, with varieties growing across the entire continent. They like shady areas, deciduous forests, moist soils, slightly acidic soils, and

lowlands. They are found occasionally in scrubland and hedgerows or field headlands bordering waterways. In addition to the numerous varieties of wild garlic, there are several species of wild onion that look very similar, as well as chives that have naturalized in the wild. Cultivated garlic, introduced by European settlers, has now naturalized and grows wild. It is often found alongside horseradish and hawthorn in old farmyards and abandoned homesteads.

Health, Nutritional, and Medicinal Benefits: it is antibacterial, antifungal, immunomodulator, antispasmodic, carminative, antithrombotic, cardioprotective, antimicrobial, diaphoretic, expectorant, hepatoprotective, hypoglycemic, hypolipidemic, hypotensive, and rubefacient.

Wild garlic, like most wild plants, provides all the benefits of the cultivated version, but it is more potent. It helps to lower blood pressure, reduces cholesterol, reduces inflammation, decreases insulin sensitivity, inhibits platelet aggregation, and eases stomach pain. It treats asthma and bronchitis, aids in weight loss, treats intestinal ailments, and relieves indigestion. Externally, it can be applied to arthritic joints. Garlic, with plantain, aids in relieving the itch of poison ivy and can help heal sores.

Edible Parts: you can eat the stem, root, and flowers.

Look-Alike Plants (Poisonous and Not): lily of the valley, with its attractive, small, white, bell-shaped flowers is quite poisonous, and looks something like wild garlic. “Star of Jerusalem” flowers grow in the same conditions as wild garlic. are similar in look, and non-edible, though not poisonous.

Recipe: Wild Garlic Paste

Ingredients

½ pound wild garlic leaves

½ ounce sea salt

½ cup coconut oil, softened

Method:

Blend all ingredients in a blender, pour into a container, and let set. Coconut oil solidifies at room temperature. You may store the paste for up to a month in the refrigerator.

CHAPTER TWENTY-EIGHT: WILD GINGER

Latin Name: Asarum canadense

Folklore holds that eating ginger before magic rituals increases the power of that magic. It is used in love spells, to attract money and power, and to ensure success in personal and business endeavors.

The wild ginger found in North America is quite different from that found in Europe and even more so from cultivated ginger. North American wild ginger sometimes is known as snakeroot, partly because of the winding nature of its rhizomes that knot together to look like intertwined snakes, and partly because it was used to treat snake bites.

This practice of using plants that resembled the ailment or part of the body that they were used to treat was a common thread in First Nations folklore. Oddly, it has been borne out often in various medicinal cures they used.

Settlers introduced their own mythologies into the harvesting of wild ginger, believing that they should use only cold steel (not tempered), to harvest. This may have been intended to preserve its sharp, sweet, and spicy flavor, more than for mythological reasons.

During the Roman holiday, Saturnalia, people hung the bitter herbs (wild ginger, olive, bindwood, holly, horsetail) in their homes as a tribute to the god Saturn.

Description of the Plant: wild ginger leaves are heart-shaped, growing on a slender, long (two to three inch) stem that looks similar to nasturtium stems. The stems grow out of the knotty root that looks like numerous small snakes intertwined. Leaves are palmated,

somewhat like coltsfoot leaves. They have an almost furry appearance underneath.

Common Names: wild ginger, Canada ginger.

How, When, and Where to Gather: ginger grows in the thicker undergrowth of woods, moist low-elevation forests of the Pacific Northwest, in British Columbia, Oregon, Washington, California, Idaho, Montana, and western Alberta. Some have been found in Minnesota and southern Ontario. It prefers mild, wet winters and warm, dry summers. It also grows in eastern North America in spotty growth regions.

Health, Nutritional, and Medicinal Benefits: it is useful as an anti-inflammatory, stimulant, anti-colic, anti-anxiety, anti-stress, antiseptic, antibacterial, and anti-asthmatic.

Wild ginger's most popular use is to relieve upset stomachs, indigestion, and intestinal ailments, such as gas and cramps. It is also used to treat arthritis, colds, fibromyalgia, influenza, lupus, and high cholesterol.

Edible Parts: you can eat the root and the stem (in moderation).

Look-Alike Plants (Poisonous and Not): wild ginger often is cross-identified with coltsfoot, or local viola species. Ginger flowers grow at the base of the plant near the ground. The coltsfoot leaf, though, is not heart-shaped like the wild ginger plant.

Recipe: Wild Ginger Chocolate Treats

Ingredients

½ pound wild ginger roots, broken into segments

1 package mint or semi-sweet chocolate chips

Method:

Melt chocolate chips in a double boiler. Stir in ginger root. Remove them from the chocolate, and place the roots spaced out on a sheet of wax paper to cool and solidify.

CHAPTER TWENTY-NINE: WILD GRAPE

Latin Name: Vitis riparia

Why did the Viking explorers, when landing in the new world, name it “Vinland?” The smell of the grapes was so overpowering that they believed the entire land must be covered by them. This may be a bit of a yarn, since they also, quite sarcastically, called an island of nothing but glaciers and ice in the coldest part of their world, Greenland!

Grapes have a long history of being loved (as fruit and wine), around the world with the ancient Greeks having a god, Dionysus, dedicated to wine and grapes. According to legend, he pursued Ampelos recklessly, who was gored to death by a bull. Dionysus changed his dead lover into a grapevine. Perhaps it is a confusing and twisted legend, but it is consistent with the twisting nature of the grapevine itself.

Description of the Plant: wild grapes always have heart-shaped leaves, although the leaves mostly have toothed margins and a simple alternate pattern. In some cases, they are shaped somewhat like a poplar leaf with jagged edges, but larger and have a heart indentation at the stem. There may be three or five lobes on the leaves. The plants have forked tendrils that dry out as they age. Plants last for years, and many stems do not die back in winter, becoming more brittle and gnarled as they age. Flowers look shaggy, form in a droopy cluster, and develop into bunches of grapes.

Common Names: they are also known as fox grapes.

How, When, and Where to Gather: wild grapes originally grew on the east coast Appalachian area and the west coast of North

America, including Oregon and California. It has spread to other coastal ranges, the central valley, and Sierra foothills. It prefers creeks, streams, and floodplains below 3,200 feet in elevation. California grape grows in the Sierra foothills.

Health, Nutritional, and Medicinal Benefits: it is an analgesic, anti-inflammatory, cardiogenic, disinfectant, antioxidant, and antidiarrheal.

Grape leaf tea is used to treat diarrhea, stomach ache, hepatitis, and thrush. Grape leaf poultice, applied externally, treats headache, rheumatism, fevers, coughs, and sore throat. Grape root, as a wash, is used to treat sore eyes. The fruit is beneficial in preventing cardiovascular disease, reducing bad cholesterol, and protecting against cancer. The grapeseed oil also helps with cholesterol levels and heart health. Seeds and fruit are indicated in helping to improve motor skills and memory and to fight cell aging, thanks to resveratrol. The leaves also help blood circulation.

Edible Parts: you can eat the fruit, leaf, and root.

Look-Alike Plants (Poisonous and Not): common moonseed and porcelain berry both look similar to wild grapes and both are poisonous.

Recipe: Fermented Grape Leaves

Ingredients

4-6 cups grape leaves

¼ cup pickling salt

4 cups filtered water

Method:

Roll grape leaves tightly in bundles about the size of a fist. Stuff them in quart-sized mason jars. Mix salt and water. Pour over grape leaves and cover loosely. Let ferment for three weeks until the process stops, then seal and store. Ideal for stuffed grape leaf recipes.

CHAPTER THIRTY:

WILD MINT

Latin Name: Mentha arvensis, Mentha canadensis

The scent of mint is prominent in mythology. Its smell is so powerful that it historically has been used to mask the smell of carrion and the decay of corpses. This led mint naturally into myths involving Hades, the god of death and the underworld, Persephone, the queen of the underworld, and Menthe, a nymph with whom Hades was enamored. In typical tragic fashion, Persephone jealously turned Menthe to dust, from which Hades grew mint.

There are so many members of the mint family growing wild that it is difficult to establish a dominant set of myths or lore associated with them. From catnip to lemon balm, peppermint to spearmint, they have captured the taste buds of the world.

Description of the Plant: Mints have very fragrant, toothed leaves and tiny purple to white flowers. In most species, the margins look almost like the teeth of a circular saw, in others, the toothed edges are smoother. They grow between eighteen inches and four feet high, depending on variety, on angled, square, green, hairy stems. The mints have whorls of flowers that bloom in early summer.

Common Names: it is known as catnip, catmint, peppermint, spearmint, bee mint, lemon mint, and lemon balm.

How, When, and Where to Gather: wild mint grows across all of North America. There are many members of the mint family. It likes growing around moist meadows, wetlands, and marshes, full to part sun, softer soils, and nitrogen-rich growing mediums. Some varieties, such as the balms, grow well in sun, while spearmint tolerates shade well.

Health, Nutritional, and Medicinal Benefits: it is an anticatarrhal, tonic, diaphoretic, anthelmintic, bitter, digestive, choleric, emmenagogue, and diuretic.

The multitude of mint family members means there is a multitude of medicinal, culinary, and health uses for this plant.

Mint has been recognized for centuries as a digestive aid, calmate for upset stomachs, breath freshener, stress, and anxiety reducer, and sleep aid. Peppermint is well known for its calming effect on the digestive system, while lemon or bee balm is an effective mosquito repellent. Catnip, or catmint, protects against harmful bacteria, while spearmint is a popular mouthwash or toothpaste additive. High in antioxidants, mints are excellent anti-aging, cancer-inhibiting herbs. They maintain healthy skin and assist with allergy relief. Mints are used to treat cold symptoms, promote urine flow, relieve thirst, strengthen kidney function, treat asthma, liver and spleen disorders, relieve sore throat, cough, inflammation, and aching joints, and alleviate muscle spasms.

Edible Parts: you can eat the leaves and the flowers.

Look-Alike Plants (Poisonous and Not): bugleweed and northern horehound both look like mints, but are relatively safe and non-toxic, like almost all members of the mint family.

Recipe: Mint Peas

Ingredients

4 cups shelled peas or edible pod peas

½ medium red onion, thinly sliced

½ cup mint leaves, torn small

vinaigrette

Method:

In a bowl mix all ingredients and let stand for 60 minutes, stirring occasionally.

CHAPTER THIRTY-ONE:

WILD ONION

Latin Name: Allium canadense

While many herbs and medicinal plants also have myths and folklore associated with them, the onion's history is rooted in practical applications. It was such a valued food that the Jews, when leaving Egypt, lamented the loss of the onion in their diet. The southwest indigenous people of North America hold annual festivals in honor of the onion. Recently, a 1,300-year-old onion was discovered in a woman's grave.

Like garlic, they have been used to ward off evil and keep witches or spirits away. They are revered, not as something mysterious, but as an essential part of a healthy diet, and have been for thousands of years. As a result of their perceived value, modern cultivated onions began as the small, shallot-style wild onion, bred and nurtured until the modern yellow, white, Spanish, red, and other varieties became perfected.

Description of the Plant: it is a monocot, with many singular stems/leaves erupting from the base. The stems are wedgy, triangular in cross-section, and hollow, producing a white flower at the end of most of the stems. Chives, onions, and garlic produce purple flowers, sometimes white. The stems resemble garlic and chives more than domestic onion.

Common Names: it is known as meadow onion or Canada garlic.

How, When, and Where to Gather: wild onion grows in full to partial sun, mid-range soil moisture, and slightly acidic soils. It grows well in meadows, grassy wooded banks of creeks, and in marshy areas. It can be found along roadsides and railroad embankments,

spread by human traffic. It predominates in eastern North America, but there are varieties throughout the continent, often where wild garlic is found. Gather it in spring, summer, and autumn. The stems are best before they begin to dry and droop in the summer heat, but, as a perennial, they regrow each year, so it is possible actually to harvest the root well into winter, before the frost is deep and the cold collapses the root bulb.

Health, Nutritional, and Medicinal Benefits: it is an anti-inflammatory, antibacterial, antifungal, immunomodulator, antispasmodic, carminative, antithrombotic, cardioprotective, antimicrobial, diaphoretic, expectorant, hepatoprotective, hypoglycemic, hypolipidemic, hypotensive, and rubefacient.

Wild onion, like wild garlic, has an array of medicinal and health benefits. It is pain-relieving and helps treat inflammation, muscle aches, and sprains. It is cardio-tonic, strengthening the heart muscle, while also stabilizing irregular heartbeats. Onion is used to treat skin infections, rashes, boils, and warts. It is used to remove intestinal worms and helps relieve gas and bloating.

Edible Parts: you can eat the root, stem, leaf, blossom, and the seed bulb.

Look-Alike Plants (Poisonous and Not): death camas and crow poison both are poisonous plants that look like wild onions. Chives, which now grow wild, also look like wild onion, but are very safe to eat.

Recipe: Wild Onion Scrambled Eggs

Ingredients

½ cup chopped wild onion

5 eggs

½ teaspoon turmeric

salt to taste

½ teaspoon garlic powder

¼ teaspoon red chili flakes

1 tablespoon butter, melted

cooking oil

Method:

Scramble eggs in a bowl, sprinkling in turmeric, garlic powder, and butter. In a warm fry pan with oil, add in onions and chile and cook until softened. Add in your eggs, moving the curds around as they cook. Turn off the heat and gently guide them into doneness. Do not overcook!

CHAPTER THIRTY-TWO: WILD ROSE

Latin Name: Rosa rugosa, Rosa canina, Rosa multiflora, and more



The mythology surrounding the rose is a confusing one, with early Christians believing it was the blood of Christ that stained the white rose red. In Roman mythology, the goddess of flowers, Flora, created the rose from the body of a nymph. In Greek mythology, Aphrodite, while pursuing Adonis, cut her feet on thorns, drawing

blood that became roses. The wild roses of North America also held religious symbolism for the Indigenous peoples. They believed roses to be the symbol of life, keeping ghosts away.

Description of the Plant: wild rose offers the figurative carrot and stick approach: the beautiful, delicate flowers contrast with the very sharp thorns the plant uses as a defense. Flowers are bright pink to almost white, depending on the quality and type of soil in which they grow and the flower always has five petals. Compound leaves grow with seven to nine dark green shiny leaflets that are oval with sharp, saw-tooth edges. The shrubs grow to about three feet, but tend to bend over as they grow larger. The flowers ripen into reddish-orange fruits, called hips. *Common Names:* it is also known as sweet briar or dog rose.

How, When, and Where to Gather: wild roses are found from Alaska to Atlantic Canada. It endures cold winters, and grows in open areas, prairie fields, clearings, roadsides, trails, and other open areas. It also likes thickets and small stands of brush, stream banks, and rocky outcrops. Pick the flowers in mid-summer to late summer, and the rosehips (seed pods) in late summer through to early winter. Leaves should be picked in limited quantities only until early to mid-summer, as the dry season will stress the plants.

Health, Nutritional, and Medicinal Benefits: it is a diuretic, digestive, mildly sedative, antiseptic, anti-inflammatory, anti-parasitic, laxative, anti-cholesterol, antispasmodic, and emmenagogue.

Rose hips and rose petal teas, emulsions, tinctures, and decoctions reduce pain. Rose is used as a heart tonic, to lower cholesterol, treat gout, for sore throats, to stimulate the liver, and increase appetite and circulation. Rose petals are mild laxatives, work as antispasmodic, relieve intestinal cramping, help soothe the nervous system, and ease tension. Topically, rose can treat inflammation in wounds, rashes, bites, stings, and hives. Rose hips

have excellent nutritional value, with many vitamins, minerals, and iron.

Edible Parts: you can eat the flower, rose hip, and leaves (tea).

Look-Alike Plants (Poisonous and Not): there are no toxic look-alikes for the wild rose.

Recipe: Wild Rose Oatmeal

Ingredients

1 cup steel cut oatmeal

2 cups rose petals

½ cup blanched rose hips

½ cup raisins or dried cranberries

½ cup chopped apples

¼ teaspoon cinnamon

Method:

Make oatmeal according to instructions, with rose hips, cranberries, and apples. Add in cinnamon. Serve in bowls and top with rose petals and a light sprinkling of cane sugar.

CHAPTER THIRTY-THREE: WILD SARSAPARILLA

Latin Name: Aralia nudicaulis



In the Greek myths of Krokos and Smilax, Smilax pursues Krokos, but he is not interested. She wastes away, and Aphrodite turns her into a briar that smells like carrion and has berries as black as night—the sarsaparilla vine.

Aficionados of old Western movies may be forgiven for thinking that the sarsaparilla drink that the pure, dressed-in-white hero cowboy drank actually was made from the root of the sarsaparilla plant. Alas, it was not. Most often, it was made from birch oil.

Yet, sarsaparilla commonly grows as a trailing vine in the southwest United States, South America, tropical Central America, and the west coast rain forests of British Columbia. It often is confused with yellow dock, but yellow dock is actually related to several varieties of sorrel.

Description of the Plant: once this plant was uncommon in northern temperate climates, but now it is found even in Manitoba. It has a strong resemblance to poison ivy and likes similar conditions, so care must be exercised when selecting the plant. Sarsaparilla has a single leaf stalk that divides into three stems, each with three to five oval to pointed, toothless, oblong-shaped leaflets. Flowers are greenish white, on three umbels on a separate flowering stem.

Common Names: it is also known as wild licorice.

How, When, and Where to Gather: sarsaparilla grows in full shade and semi-shaded areas. Its range includes Alberta to Newfoundland, south as far as Georgia, in Nebraska, and North Dakota, but it is less common in the prairie regions. There is some growth in the northwestern United States and British Columbia. Sarsaparilla is relatively adaptable to varied site requirements. It grows in coarse, fine, and medium textured soil, ground that is moderate to rich in nutrients, and poorly drained to well-drained sites. It is shade-tolerant, but it prefers lightly shaded, open woods.

Health, Nutritional, and Medicinal Benefits: it is a pituitary stimulant, metabolic stimulant, immuno-stimulant, antiseptic, antibiotic, alterative, anti-inflammatory, antipruritic, anti-rheumatic, diaphoretic, alterative, aphrodisiac, testosteronic, progesteronic, diuretic, and vulnerary.

Externally, sarsaparilla is used as a poultice for wounds, burns, sore muscles, joint pain, insect bites, eczema, or sores. The root, in a tincture or decoction, is used as a cough medicine, to treat asthma, pulmonary diseases, rheumatism, digestive issues, stomach aches, and toothaches.

Edible Parts: you can eat the root, leaves, and fruit (in limited quantities).

Look-Alike Plants (Poisonous and Not): poison ivy and sarsaparilla look similar early in the spring, but not as they mature.

Recipe: Sarsaparilla Root Beer

Ingredients

1 cup chopped sarsaparilla root

4 cups water

½ teaspoon anise

½ teaspoon allspice

1 stick cinnamon

¼ cup molasses

1 cup demerara sugar

8 cups soda water

Method:

To the water add all spices and root, simmer for thirty minutes. Add molasses and simmer for another five minutes. Remove from heat and filter. Add liquid back to pot, bring to a simmer and add sugar. Remove from heat and cool. Pour into glasses about ⅓ full, add ice, and then fill with soda water.

CHAPTER THIRTY-FOUR: WILD STRAWBERRY

Latin Name: Fragaria vesca, Fragaria alpina

One only has to look at the shape of the strawberry to understand its symbolism in lore and mythology: heart-shaped. It also has a similar shape to an enlarged womb. So, as expected, it is both symbolic of love and of fertility. Strawberry was used as a marker around the entrances, altars, and pillars of early Christian churches. For the Romans, it also represented the goddess of love—Venus.

In contrast, Anne Boleyn's strawberry-shaped red birthmark indicated that she actually was a witch! England broke with the Roman Catholic church following the annulment of Henry VIII's marriage to his first wife. Henry VIII then took a second wife—Anne Boleyn. Her haughty attitude, the "evil" wife who followed Queen Catherine, and her inability to bear a son for the king all led to the court disliking her and seeking reasons to condemn her. If she was a witch, it did not save her from being beheaded on May 19, 1536. Her strawberry birthmark also did not save her.

Description of the Plant: wild strawberries look identical to cultivated ones, except that they are widespread throughout fields and much smaller. The fruit is more diminutive, the plant leaves are not as large, and the entire plant is not as robust. However, the berries are as nutritious or more so than domestic ones, and the leaves have more nutrients. Leaves are pinnate and have three leaflets with toothed edges and a somewhat hairy surface. Flowers are small and white, with five rounded petals.

Common Names: it is known as the alpine strawberry.

How, When, and Where to Gather: wild strawberry, or alpine strawberry, is a very flexible, adaptable fruit, with a wide range of habitats. These include mixed woods and hardwood forests, edges of cedar and evergreen swamps and moss, rocky woodlands, and damp ledges. It also thrives in rich, loamy drier soil, and will grow even in gravelly areas and wasteland, in yards, and along trails and pathways. Spread by birds, bears, and even humans, their seeds grow wherever there are enough nutrients to germinate. They are found throughout the United States and Canada, as far north as central Alaska. Fruit is ready to be picked in late June to early July in northern parts of North America, and a few weeks earlier in the south. Leaves may be picked throughout the growing season. However, in later summer, bugs tend to scar the leaves and lay eggs on the undersides.

Health, Nutritional, and Medicinal Benefits: it is a laxative, diuretic, astringent, depurative, antirheumatic, anti-inflammatory, and antioxidant.

Strawberries have an extensive history in folklore as a medicinal herb. Leaves and flowers were used to treat gout but are not as widely used as in the past. However, they are still beneficial for people suffering from dysentery, gout, arthritis, premature aging, high blood pressure, high cholesterol, diabetes, liver damage, a weak immune system, high toxicity, cancer risks, sore throat, to promote eye health, cardiovascular system, respiratory infections, indigestion, constipation, dehydration, and to improve kidney function.

Edible Parts: you can eat the leaves and the seeds (fruit).

Look-Alike Plants (Poisonous and Not): the closest look-alike to a wild strawberry is strawberry weed, which does not produce the distinctive berries and is not toxic.

Recipe: Strawberry Liqueur

Ingredients

2 cups strawberries, chopped

1 ½ cup white sugar

2 cups vodka

Method:

Place strawberries in a mason jar. Mix vodka and sugar and pour over strawberries. Let sit for six weeks, shaking occasionally. Filter liquid into jars and store in the refrigerator.

CHAPTER THIRTY-FIVE: WOOD SORREL

Latin Name: Oxalis acetosella



A large number of medicinal plants also carry religious symbolism. Wood sorrel is one such plant. The veins of the leaves are said to represent the marks of the blood of Christ. Part of its connection to Christian mythology arises from its tendency to flower between the

Easter holiday and Whitsun, coinciding with the rising of Christ. It also blooms a second time in the UK in late summer to early fall.

It also has been associated with the Irish shamrock. Although it is related to garden and field sorrel, it looks completely dissimilar but has a similar, lemony taste. Garden and field sorrel look more like a swiss chard leaf without the long stem.

Description of the Plant: wood sorrel leaves look similar to clover leaves, with three heart-shaped segments. Leaves grow in clusters. Flowers are small and white with five petals. They produce two crops of flowers, but generally only the first germinates. The stems are thin, delicate, and tasty, often turning reddish.

Common Names: it is known as sour trefoil, sour grass, and yellow oxalis.

How, When, and Where to Gather: as the name implies, wood sorrel prefers hedgerows, shaded areas, areas with filtered light like that in thinner woodlands, and in creek banks, and other moist habitats. They need rich, moist soil like that provided with rotting leaf cover, and need good drainage to thrive. Their range is all of North America from southern Canada to Tennessee in the southeast, westward to Minnesota, and south along the Dakotas. Wood sorrel leaves and flowers are best in spring and early summer.

Health, Nutritional, and Medicinal Benefits: it is used as a diuretic, astringent, anticancer, and anti-nausea.

Applied to the skin, wood sorrel provides a soothing effect. It is used to treat scurvy, urinary tract infections, fever, sore throats, mouth sores, nausea, cleanse the blood, and act as an anticancer treatment.

Edible Parts: you can eat the leaves, flowers, and stems.

Look-Alike Plants (Poisonous and Not): wood sorrel looks like clovers and black medic, but there are no toxic look-alikes.

Recipe: Wood Sorrel Gimlet

Ingredients

Base Syrup:

1 cup wood sorrel, chopped

1 cup water

1 cup sugar

Gimlet:

½ cup wood sorrel leaves, partially crushed

2 ounces gin

½ ounce lemon juice

1 ounce sorrel syrup

Method:

Simmer base ingredients in a saucepan for twenty minutes, cool. Blend Gimlet ingredients, except crushed sorrel leaves with crushed ice. Put sorrel in the bottom of a glass, add blended mixture and stir slightly.

CHAPTER THIRTY-SIX: SUSTAINABLE STORAGE METHODS FOR LONG-TERM USE OF HERBS

There is not the same abundance of wild fresh herbs all year round in northern latitudes, and sometimes when you pick herbs you might pick more than you can eat.

In this chapter, we will explore some of the easiest, most common, and low-budget preservation methods. This helps you to keep your wild herbs for extended periods of time.

Drying, freezing, and canning your herbs are the three most common ways to preserve them. However, they also may be preserved using oils and vinegars, or made into emulsions.

If you adhered to this guide, you spent a good deal of time getting ready to forage, learning the safety issues, how to identify plants, and which plants to pick. You may have discovered that there was far more required of you while foraging than you may have at first believed. You may also have found that you either loved being in nature, or you disliked it.

Now, you face the next set of tasks: preparing your foods and storing them. Like learning how to harvest, this step requires patience and knowledge, but it is very rewarding.

There is nothing that compares to the taste of a fresh wild berry dessert on a cold winter day, if the berries have been preserved properly. The lively taste of culinary herbs, frozen and then thawed to use in your favorite recipe, is far more exciting to the taste buds than

store-bought cultivated herbs that may have been on the shelf for upwards of a year or more.

In other chapters, we learned about identification, how and where to forage, data on specific common plants, and a few recipes for each. In this chapter, we focus on sustainably storing your herbs. “Sustainably” is a keyword! Some ignore that vital aspect of herbalism.

Al learned about honey mushrooms from a friend, tasted a sample, and loved them. Immediately, he set out to harvest them in the campground where he and his friend summered. Since these mushrooms grow in clumps, he was able to slice off huge handfuls at a time. Within an hour, he had harvested six plastic bags full of the golden treats, clearing out the entire growth he had found nearby.

That night, he cooked a full bag to enjoy with his wife, and they washed down their feast with a bottle of wine. He paid the price for his greed and lack of knowledge. Both he and his wife suffered terrible stomachaches through the night and the next day. He did not know that this species reacted negatively with the consumption of alcohol!

He then washed and froze the remaining bags. During the winter, he discovered that those mushrooms also require special storage, and he was left with rubbery, tasteless, and useless frozen honey mushrooms. He had wasted nature’s bounty, depriving others of the chance to harvest and enjoy them.

This book is presented in a manner that, we hope, you will find very easy to follow. Using the acronym “F.R.E.S.H.S.” you have discovered how to **F**orage, how to do so **R**isk-free, how to identify **E**dible **S**pecies of **H**erbs, and now, how to **S**ore **S**ustainably.

But are you fully ready and eager to continue with your wildcrafting experience? If you are not enjoying and embracing that hobby, perhaps you should re-evaluate. The following brief exercise is

intended to help you see if you want to continue. Preserving herbs takes effort and care. Are you ready and willing to take on that challenge? Let us find out.

We taught you about identifying and harvesting thirty-two common herbs. How many were you able to find and harvest? What difficulties did you experience?

EXERCISE

Foraging in the wild takes effort. There are no sidewalks, no easy pathways. The effort can be strenuous, the days in the sun (or rain) long. But foraging for new, wild herbs can be a healthier option, a great hobby, and encourage creative cooking. It allows you to be more independent from the grocery store, costs less, replaces health supplements, and can involve the whole family. With those points in mind, let's see if you are ready to continue with this novel experience.

Questions:

1. Did you find the effort to be physically strenuous, or did you find it to be a pleasurable experience?
2. Were you able to identify and harvest enough herbs to feel that the effort was worthwhile?
3. Do you believe that you saved money by foraging?
4. Were you able to cook successfully with your herbs?
5. Did you use any herbs medicinally or for a minor health concern?
6. Did you forage with other people, and, if so, did it enhance the experience?
7. Will you be foraging again?
8. Will you be expanding your pantry of herbs that you harvest?

STORAGE OF HARVESTED HERBS

The primary focus when storing herbs should be on preserving the medicinal value of the herb so that the active ingredients are not excessively diminished. There are numerous methods for preparing and storing processed herbs, but the primary means of storing raw plants are: freezing, drying, refrigeration, frozen blends, vinegar, oils, and tinctures.

Drying

There are five main ways to dry herbs: sun drying, air drying, microwave drying, oven drying, and dehydration. Each has its own advantages and drawbacks. Herbs are dried in a variety of ways, depending on the part of the plant used. There are drawbacks to each method, as well as advantages.

Air drying is a preferred method, as it is cost effective, easy, and preserves more of the oils and nutrients in the herb. It also takes a lot longer and a lot more space, as screens require lots of room around them, and bunch drying requires a dedicated area where they will not be disturbed.

Sun drying is quick, so long as the area is calm and free of dust and relatively free of birds and bugs. However, more delicate plants and flowers do not dry well in the sun.

Microwave drying tends to break down the herb structure if done on a higher power level. It is also a two-stage process that requires monitoring, but it is the quickest method of drying.

Oven drying requires that you constantly monitor the herbs so that they do not dry too quickly and lose all food or medicinal value, or burn. This process is far from energy-efficient, but it is the second-quickest.

Dehydration is the third-faster (or third-slowest, depending on perspective). It is inexpensive and efficient. The cost, of course, is in

the initial purchase of a dehydrator—\$40 to \$100. When filling the dehydrator, though, care must be taken to make sure all leaves are of the same density and consistency. Stems and roots do not dry well or quickly in a dehydrator.

A dehydrator is a quick and easy option for drying herbs, but has limited space on its multiple levels. Thicker leaves, such as basil, parsley, plantain, and leaves from shrubs should be dried in a dehydrator. Do not use a microwave if possible since, even at low power, the plants will cook a little, degrading the essential oils in them.

All the methods of drying are generally the easiest and immediate way to preserve your harvested herbs.

For all herbs, shake out and cleanse prior to drying to remove debris and insects. Be careful of introducing more moisture to your plants if you intend to dry them.

Air Drying

Arrange separated, delicate or plain leaves (not heavy leaves like some sorrels) loosely on a screen, and place the screen in an area where it will not be disturbed by insects, animals, wind, sun or rain. If you must use aluminum screens, turn the leaves more often, so that there is no risk of rusting or molding of the herbs as they dry. Place the screen so that air underneath moves freely. You should place the screen in an area where sunlight is minimal. You may stack the screen trays vertically, if you leave at least 12-18 inches between levels. Turn the leaves at least twice each day. If humidity will be high at night, bring the trays indoors.

Sun Drying

For roots and seeds, herbs can be dried in direct sunlight. Flowers and delicate parts cannot be sundried, as they will break down easily and not dry evenly and much of the nutrient value may be lost. Use trays similar to those used in air drying, and arrange them in direct

sun but out of the wind and away from pests. Turn regularly and store by your preferred method (sun-dried fruits occasionally are stored in oils, vinegar, or other suspensions, or used in emulsification).

Oven Drying

Your oven or toaster oven needs to be set at its lowest temperature (200°F), as you do not want to cook the herbs, but merely dehydrate them. Lay out the leaves on a silicone tray and dry them for as long as three or four hours. You will not need to turn them, but, as they dry, they may crumble. For this reason, you should wrap your lower, empty tray in foil to catch the dropping leaf parts.

Do not use your convection function, as the breeze will scatter the leaves around the oven. If you do use the lowest temperature and do not have an oven with an open element or open flame or pilot, you may use a muslin cloth, but this is not advisable for safety considerations.

Microwave Drying

Microwaves all have air movement as products cook. Using paper towels is difficult, but possible. However, arranging leaves on a standard microwave tray does not dry them properly without the paper to absorb some of the moisture. Microwave a thin layer of leaves, sandwiched between or placed on layers of paper towels, for one or two minutes, at 100-200-watt settings (generally level two). This is only double the power of an old incandescent bulb. Then, remove and replace paper towels if needed, and microwave for an additional thirty seconds at a time until they are dry.

A problem with microwaving is that the leaves may feel dry when removed from the microwave, but once they have cooled, they may again feel moist. You may wish to finish the drying process by air drying.

Dehydrator

Dehydrators can be inexpensive and easy to use. They generally have three, four, or five levels on which you can place herb leaves, stems, and berries. Dehydrators are very efficient at drying berries. Stems and roots take a long time, but you may choose to partially dry the roots and then finish by air drying them on racks in a darkened room.

Spread your leaves on each tray, making sure they are not packed tightly together. The settings are automatic: once the trays are loaded and the cap and motor are in place, simply turn on the dehydrator and allow it to dry the herbs for up to twelve hours.

STORAGE OF DRIED HERBS

Whole herbs store best. If you are sure that the herbs plants will not be disturbed, hang them loosely in a dark, undisturbed place with low humidity. Moisture is the enemy of dried herbs. However, you still can store whole dried herbs safely in large paper bags, or in containers with paper towels to absorb any moisture.

Storing in glass jars with cork stoppers, or other types of sealed glass works best.

Make sure that each herb collection is labeled with the name and date that the herb was prepared. Check every few weeks for quality.

Once the leaves are thoroughly dry, crumble them and store them in airtight glass containers (preferably not plastic or metal, so taste transfer does not occur), in a dark, undisturbed room where the temperature is moderately cool and does not fluctuate. You may also use paper bags that you seal, but if any moisture remains, this will cause problems with the product. If possible, use an old onion bag, fine camping mesh bag, or similar porous material.

Where you can store the entire plant (or stems, leaves, and flowers), hang the plant in a calm, dry, shaded area (if outdoors) or a dark, well-ventilated, dry room for several days, by bunching them at the stem base and securing them with an elastic band.

When storing dried herbs (or even fresh, frozen) do not grind or crush them until needed. The flavors will last longer, as it does in coffee beans, if you do not break up the molecules and release the oils the herbs contain. Try to avoid soft plastics with fresh herbs, as the plastics will leech the oils out. Store all herbs away from light and heat, ideally in a cooler location.

Freezing and Refrigeration

Conventional home freezing is less efficient than the flash freezing methods employed by large fruit and vegetable producers that

supply grocery stores. They use “flash freezing,” which very quickly freezes produce in such a manner that the cells of ice are much smaller than the crystals formed by conventional, slow refrigerator freezing. However, we can approximate the freezing techniques to create a quality frozen product.

Herbs do not require the flash freezing that berries, meat, and vegetables require commercially. And many herbs are not suitable for freezing.

Freezing preserves the essential oils in herbs, which gives them much of their flavor. To freeze, rinse the plants, let them air dry briefly, remove the leaves and place them, separated, on a flat tray in the freezer unit. If available, use a screen, so that moisture can wick or drip away. Once the leaves have frozen, bag them, seal the bag, and put them back in the freezer. Handle them quickly so that they do not thaw again.

Several herbs can be stored for up to three weeks in the refrigerator. Rinse the herbs and let air dry for a short time. Snip the bottom of the stem, like you would do for flowers in a vase. Place the herbs, stem down, in a jar with water in it. Wrap a plastic baggie or plastic wrap loosely around the plants and store them in the refrigerator, changing the water daily. This technique is similar to rooting clippings, and will allow the plant to continue to grow a little. A teaspoon of sugar provides some nutrition, along with a crushed antacid (calcium), if storing the product for a longer time.

Hard herbs (those with a hard stem), like mints or sage, can be stored by rolling them in a damp towel and placing them in a perforated plastic bag in the fridge.

Some of the delicate herbs that do not tolerate cold, like lavender or basil, can be kept in a jar outside of the refrigerator.

Sunlight is the enemy of all fresh herbs, and even artificial light can work quickly to degrade the quality of your harvested herbs, so even

herbs like lavender should not be stored where the light is bright or near heat.

To freeze herbs, break them apart, separating leaves, flowers, and stems. Rinse them in cold water, set out to dry for thirty minutes then place them on a cookie sheet or screen tray from an air fryer oven before placing in the freezer until solidly frozen.

Remove the tray and pack frozen leaves in freezer bags, remove air, and replace in the freezer.

An alternative is to chop the leaves coarsely, then place them in ice cube trays, fill with water and freeze. When completely frozen, remove ice cubes to freezer bags to store until needed.

Innovative ways to store fresh herbs: chop them and mix them in a blender with a carrier oil such as olive, grapeseed, almond, or avocado oil, then refrigerate in jars for up to six weeks.

Make butter by softening coconut oil, mix in generous amounts of your preferred herb leaves, blend, then solidify in butter dishes or containers in the fridge for up to two months. Alternatively, coconut oil, being a very viscous, dense oil, may be frozen once you have blended your herbs with it, and then you can use it as needed.

Lastly, purée your herbs with a little oil and freeze in plastic bags.

Canning and Other Storage Techniques

Root crops and other low acid, high-density plants can be canned by blanching for three minutes and sealing them in sterilized jars (in the same way as vegetables are canned). When canning herb leaves, use about one to one and a half cups of herbs per three cups of boiled water or vinegar and place them in jars, sealing them for later use. To extend life, keep the herbs stored in the refrigerator.

Peel or scrub roots before blanching. With thick roots, stems or bark, slice the root lengthwise.

Jams and jellies with fruits all follow a couple of basic recipe patterns, with the only variation being the type of jam being made. Moisture-rich jellies require slightly less liquid to be added, while pectin and gelatin provide the thickening agent. Apple juice, stevia (an herb), or sugar provide much of the sweetener.

Many fresh herbs can be stored by chopping the leaves (and roots, bark, or stems) coarsely, then storing them in carrier oils or in vinegar that has been heated.

Other, more temporary, storage techniques are infusions, tinctures, decoctions, distillations, liniments, ointments, creams, lotions, wines, syrups, and candies.

Equipment and Supplies Needed

The proper tools are as important to storing herbs as is the proper knowledge. We have compiled a list of essential tools that you will need for your storage project.

You will need, depending upon the storage method that you are using, the following supplies:

- strainer or sieve
- kitchen scissors
- good quality kitchen knife
- cutting board
- food grater
- dehydrator
- mesh oven trays
- screens or drying trays
- silicone cookie sheets
- blender
- microwave

- toaster oven
- mortar and pestle
- ice cube trays
- glass jars with cork or mason sealing lids
- vacuum bag sealing machine
- cool, dry dark storage area with shelving
- plastic freezer bags
- paper bags
- paper towels
- tea towels
- coffee bean grinder
- elastic bands
- twine
- pickling or white vinegar
- carrier oils such as olive, grapeseed, avocado or almond
- sugar
- pectin
- gelatin

CONCLUSION: FORAGE RISK-FREE FOR EDIBLE SPECIES OF HERBS, SUSTAINABLY

This book is about safely identifying edible species of wild plants that will complement your menu and your apothecary in a manner that is good for the environment.

Safety and sustainability are the two key takeaways for foragers as they begin exploring the world of wildcrafting.

We have provided information on thirty-two edible, wild plants, but this is minuscule compared to the number of species that you can harvest within a very small radius of where you live, wherever that may be in North America.

While many of these plants also grow in other regions of the world, you now have a decent list of local plants for your dinner plate or your medicine cabinet. Knowing where to find these plants, when to harvest, and how to harvest is the critical first step in your new hobby.

There are over 5,000 edible plants in North America alone. Do not expect that you will be able to identify most of them soon. Many foragers, after years of harvesting, may have only an array of fewer than one hundred herbs and spices, but they know the myriad ways that those plants can be used in culinary dishes, used to treat ailments, or used to keep you healthy.

It is better to know a few herbs intimately than know a little about many. It is better to harvest a small quantity and variety, while preserving the bulk for future harvesters than to gorge on the entire supply, only to have it disappear from the forests and fields.

Add a few herbs to your knowledge base every year and soon you will have a cornucopia of free, healthy, tasty food at your fingertips. Many of us complement our natural diet with a few store-bought items, rather than the other way around.

Rediscover the power of nature and the energy of healthy eating as you interact with the outdoors. Just the experience could add years to your life!

Even if you chose to merely step into nature and learn about the plants around you, without harvesting, you will be richer for it. You don't need to be an expert at the start, and you don't need to be an expert at the end. You just need to embrace the natural world and appreciate what it offers, and you will be enriched for it.

Just follow the F.R.E.S.H.S. steps to identifying and enjoying your wild herbal garden. Foraging properly and safely, taking the time to become intimate with this wild world around you, and practicing mindfulness in your harvesting helps to make you a part of the raw, organic world around you. That, on its own, is a giant step toward healthy living.

Nearly ten percent of all plants, worldwide, are edible. Over thousands of years, people have come to understand and embrace their value for cooking and for medicinal purposes. More importantly, perhaps, they have recognized how intertwined we humans are with the natural world, and how essential each herb is to us.

Nearly every edible plant has its own story. Throughout history, folklore connects each valuable herb with the gods of the era and of that civilization, yet, almost universally and independently, each of those herbs has been attributed with the same healing powers. This occurred, even though those cultures were sometimes thousands of miles apart.

The stories and myths that plants possess may not have a base in scientific fact, but the aura that surrounds each specimen is almost

godlike, acknowledging the supernatural power of plants.

As you forage, pay tribute to those gods. Do not pillage the bounty over which they preside. Believe, or be skeptical of the myths, fables, and lore. Recognize that, should you destroy the natural wonder of the world over which the gods preside, they will exact their revenge. We cannot afford to risk losing this wondrous environment.

GLOSSARY OF TERMS

Anthelmintic: expelling or destroying parasitic worms, especially of the intestine.

Antibacterial: intended to kill or reduce the harmful effects of bacteria, especially when used on the skin.

Anti-carcinogenic: that which protects against carcinogens.

Antidepressant: a drug used to reduce feelings of sadness and worry.

Antidiabetic: that which protects against diabetes.

Antihistamine: a type of drug that is used to treat medical conditions caused by an extreme or regular allergic reaction to particular substances.

Antihypertensive: abnormally high blood pressure and especially arterial blood pressure.

Anti-inflammatory: an anti-inflammatory drug is one that is used to reduce pain and swelling.

Antimicrobial: any agent that kills or suppresses the growth of microorganisms.

Antipruritic: tending to relieve or prevent itching.

Antiseptic: Substance that prevents or arrests the growth or action of microorganisms by inhibiting their activity or by destroying them.

Antiviral: an antiviral drug or treatment cures an infection or disease caused by a virus.

Cephalic: of or relating to the head.

Choleretic: promoting bile secretion by the liver.

Coagulant: the process of becoming viscous or thickened into a coherent mass.

Decongestant: a medicine that helps you to breathe more easily, especially if you have a cold.

Deobstruent: removing obstructions; having the power to clear or open the natural ducts of the fluids and secretions of the body; aperient.

Detoxifier: to remove a harmful substance (such as a poison or toxin) or the effect of such a substance from something.

Disinfectant: an agent used to disinfect something.

Depurative: purification of impurities or heterogeneous matter.

Expectorant: a type of cough medicine used to make phlegm less thick in the lungs.

Irritant: something that irritates or excites.

Phytoestrogenic: pertaining to a chemical compound (such as genistein) that occurs naturally in plants and has estrogenic properties.

Progesteronic: relating to a female steroid sex hormone.

Testosteronic: relating to a hormone that is a hydroxysteroid ketone that is responsible for inducing and maintaining male secondary sex characters.

Vaso Protector: a treatment that protects the vascular system.

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