

FORAGING EDUCATION SERIES



Health & Wellness Team

Introduction

| Region 6

| Region 13



Foraging

FOR HERBAL MEDICINE & WILD FOODS

Corps of Renewal and Charity (CORAC)



An Introduction

- How to forage for herbal medicine and wild foods to supplement and sometimes replace your stores for emergency use
- How to make a seasonal plan and prepare for excursions in your neighborhood and surrounding wild areas
- Tools for easily identifying wild herbals and foods and how to use them
- How to harvest what you find, and tips on preparation and storage
- Examples of the most common wild plants in the U.S., and their nutritional and medicinal benefits





Why forage?

And what we can learn by foraging

A MATTER OF PRIORITIES

Humans can only go three days without water, but about 30 days without food. So while foraging shouldn't be your first priority in a survival situation, it can help you find some extra nutrition and calories if things become dire.

GROWING UNREST & THE FOOD SUPPLY CHAIN

In a serious crisis our local grocer's shelves could be stripped bare in as little as 72 hours. Our pantries and food prep storage can help sustain us, but will eventually be depleted if not replenished.

SELF-SUFFICIENCY

Foraging allows some people to gain a deeper understanding of their environment and feel a greater sense of control over their food source.

It's a great way to connect to your local environment and learn what it has to offer if you need to rely on it.





Bring the right tools

At a minimum, consider bringing these basic items

BAGS OR BASKET

Large reusable bags (mesh work great) or a basket to carry fresh greens, paper bags for mushrooms (plastic makes them rot faster).

CONTAINERS

If you're foraging berries, small containers or jars are ideal so the berries don't get smushed.

POCKET KNIFE AND NEEDLE NOSE PLIERS

A good pocket knife or shears for cutting foliage and digging roots. Needle nose pliers pull double duty with a set of wire cutters and the ability to extract thorns.

PEN AND POCKET NOTEBOOK

These low tech items help you mark your picks and keep notes. You can also write on your bags and containers.

Depending on your environment, other equipment may be necessary. Dress appropriately.





Rule #1: know your plants

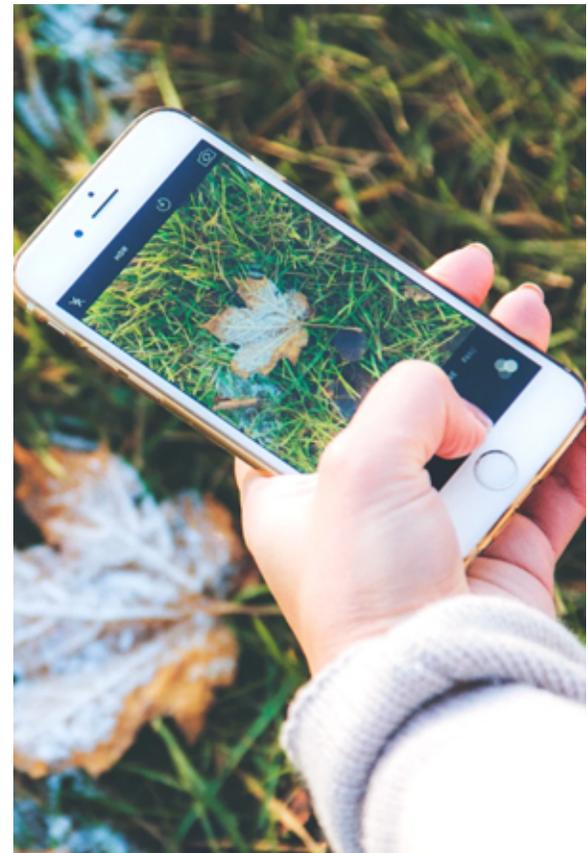
It's the most critical step involved in knowing how to forage

Being able to wander through a forest or woodland and identify wild edibles is an incredibly enriching skill. However there are steps that every expert forager has learned to be able to do this safely.

LEARN AT LEAST 3 IDENTIFICATION FEATURES

Whether it's leaf shape, range, or seed shape, begin to familiarize yourself with the different characteristics and botany terms that are used to identify wild edibles.

By researching these different characteristics you'll be able to more easily identify what makes a plant unique, compared to other similar looking plants.





Rules #2-5

Some other basic rules for foragers



UNDERSTAND YOUR LAND

Study up on the area you plan to forage. What's poisonous, and what edibles are abundant? Avoid spots near factories, golf courses, roads, or places where water and soil could be contaminated (off-trail areas away from human activity tend to be safe).

FEED ON WEEDS

Seek weedy patches where edible species grow in abundance. Dandelion, nettle, and other weeds are great to eat, and you're unlikely to deplete them by taking your fill.

HARVEST RESPONSIBLY

Check local land management guidelines for harvesting limits or restrictions. Take only what you need, leaving enough for the wildlife and for regrowth. Be mindful of your impact in sensitive habitats like wetlands, tundra, or desert.

WALK LIGHTLY

Be mindful of your impact when venturing off trail in search of plants. Travel on durable surfaces like logs and rocks and beware of trampling other flora as you go. Always practice Leave No Trace.



Identify edible plants

A quick breakdown of the edibility test for plants in the wild



LOOK FOR THE MOST COMMON POISONOUS TRAITS:

Rule out mushrooms and plants with milky sap, fine hairs, spines, umbrella-shaped flower clusters, or waxy leaves.

DO A SKIN TEST:

Take the piece of the plant you want to eat and rub it on your inner forearm or outer lip. Wait 15 minutes.

DO A TASTE TEST:

If there's no reaction during the previous step, taste that same part of the plant and wait another five minutes.

DO A BIGGER TASTE TEST:

If you don't taste any bitterness, soapy flavor, or feel any numbness, take a teaspoon of that same part of the plant and chew for five minutes, spitting out extra saliva regularly. Swallow, then wait eight hours.

EAT A SMALL AMOUNT:

If you're still not experiencing any digestive issues, eat one tablespoon of that same part of the plant and wait another eight hours. If you still have no symptoms, you can consider that part of the plant edible in the manner in which it was prepared.

TAKE PRECAUTIONS:

Use common sense. Some edible plants have toxic look-alikes, or may have edible berries but poisonous stems (such as elderberries). Also not all parts of the plant are edible simply because one part is. Test parts separately before consuming the whole plant.



Identification

Sample chart of leaf shapes

Leaf Shape and Arrangement

This chart illustrates some of the names used for different leaf shapes.

Understand the Reproductive Cycle

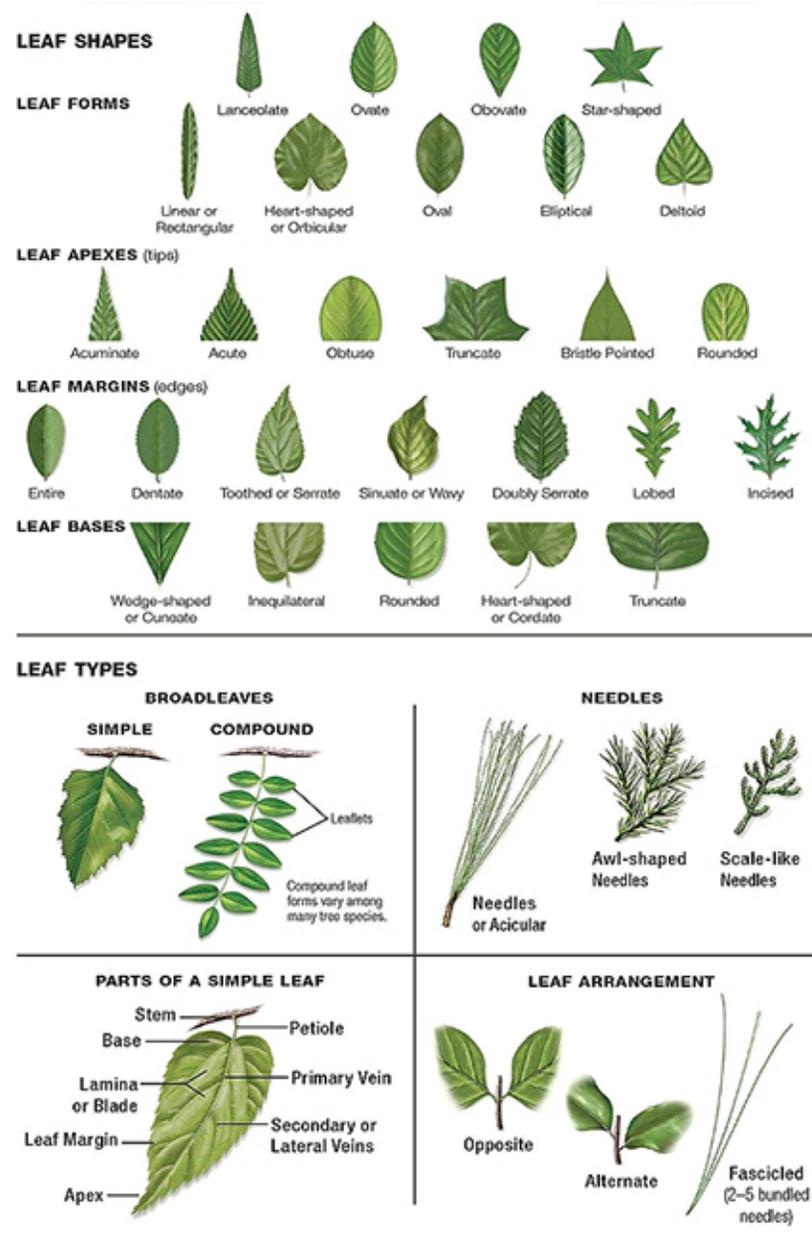
When does it flower, what do the seeds, fruits and cones look like?

Range & Habitat

What's the hardiness zone? Does the plant prefer a sunny spot or a shady forest floor?

Structure

Pay attention to the stalk shape and color or general height of the plant.





Poisonous plants

Certain characteristics make them easily identifiable, including these:

MILKY SAP

Oozes out of a plant's branches or stems if cracked or broken. It can cause skin irritation or other strong allergic reactions.

FINE HAIRS AND SPINES

This indicates that a plant has a defense mechanism to ward off predators. Most will cause some sort of stinging or burning sensation when you touch them with bare skin.

UMBRELLA-SHAPED FLOWER CLUSTERS

Most plants with these have high toxicity and should be avoided.

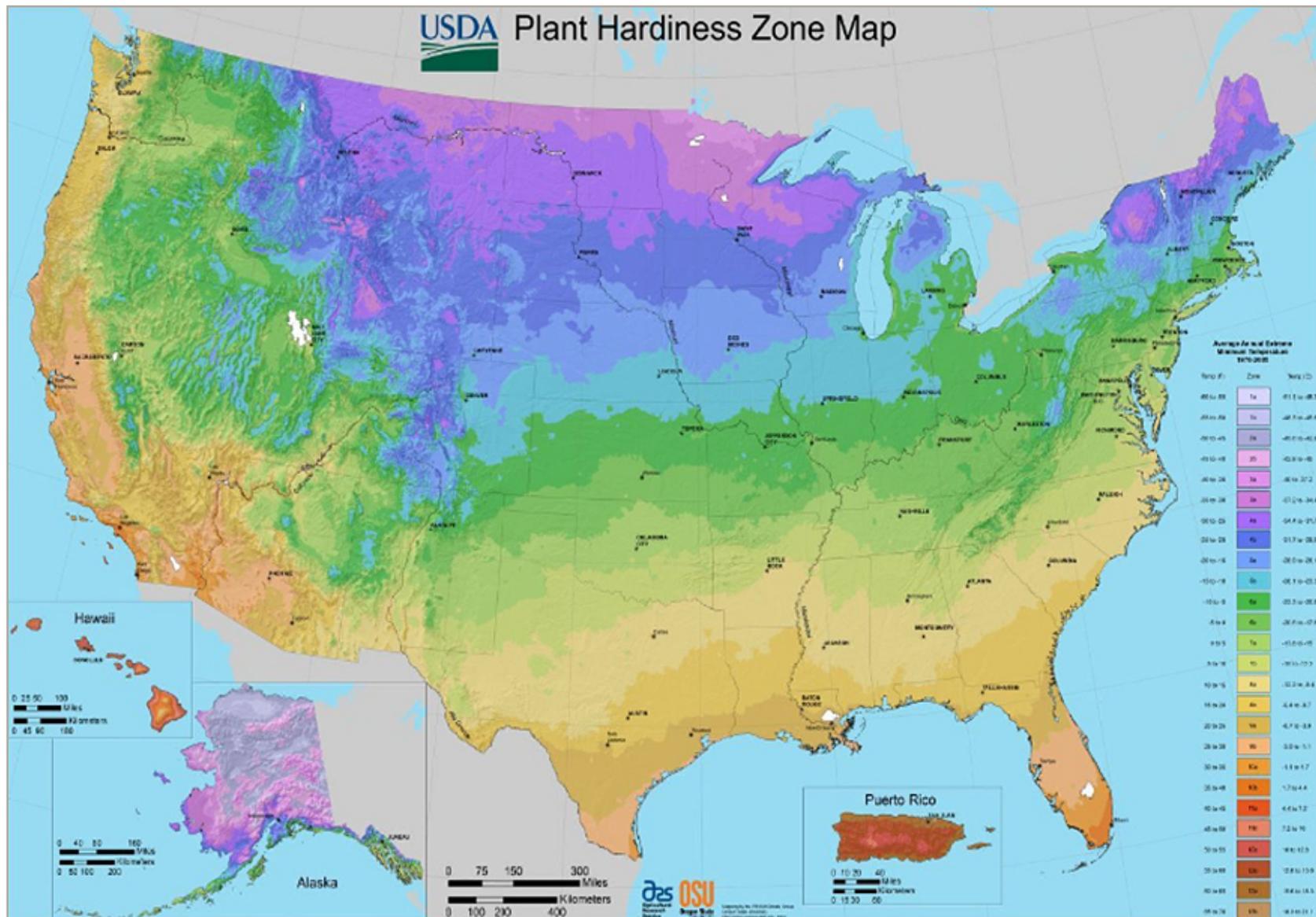
WAXY LEAVES

This is a protective layer that helps plants retain water, but can sometimes indicate that a certain type of greenery is a toxic plant and not safe to eat.

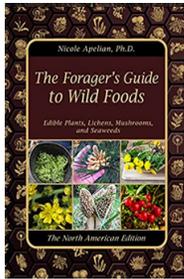
MUSHROOMS

Certain mushrooms are fine (e.g. - morels) but avoid ones that you can't identify 100%. They can be toxic.



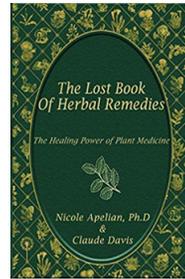


HARDINESS ZONES: Plants thrive in certain areas and will only tolerate a specific degree of winter chill.



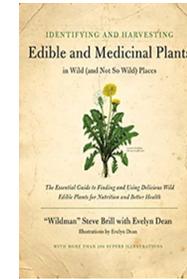
THE FORAGER'S GUIDE TO WILD FOODS

Over 400 wild foods, plant localization maps for each plant, identification guidelines, recipes and more.



THE LOST BOOK OF HERBAL REMEDIES

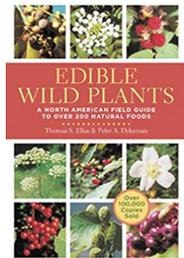
A detailed guide to learning the lost remedies and wild edibles that kept previous generations alive.



EDIBLE AND MEDICINAL PLANTS

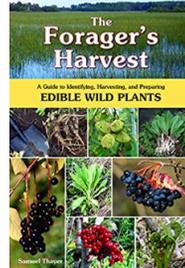
Identifying and harvesting edible and medicinal plants in the wild for nutrition and better health.

Tools: recommended books



EDIBLE WILD PLANTS

A North American field guide to over 200 natural foods, arranged by season and region.



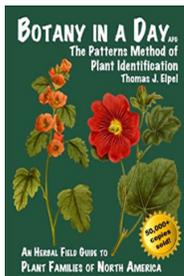
THE FORAGER'S HARVEST

A guide to 32 of the best and most common edible wild plants in North America, how to identify, find them, harvest and more.



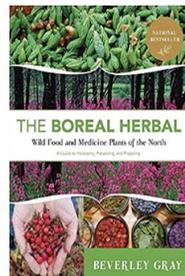
WILD REMEDIES

An excellent guide on how to forage healing foods and craft your own herbal medicine.



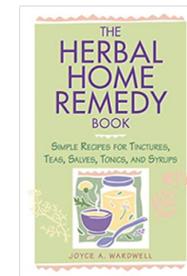
BOTANY IN A DAY

Learn the "patterns method" as an easier, faster way of plant identification in the field.



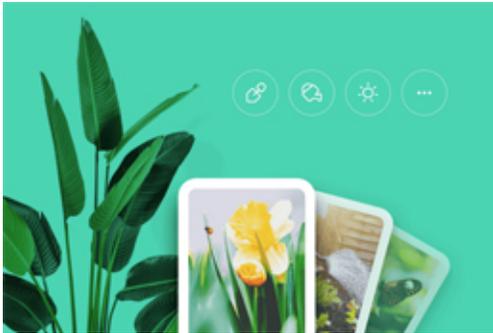
THE BOREAL HERBAL

Guide to wild food and medicinal plants of the North including how to harvest, preserve and prepare.



THE HERBAL HOME REMEDY BOOK

A beginner's guide to simple Recipes for Tinctures, Teas, Salves, Tonics, and Syrups (Herbal Body)



PICTURETHIS

Similar to other apps, PictureThis uses super-advanced AI to turn plant photos into positive identification. This app is different because it also acts as a total plant encyclopedia, even listing if plants are toxic to pets.

Tools: recommended apps



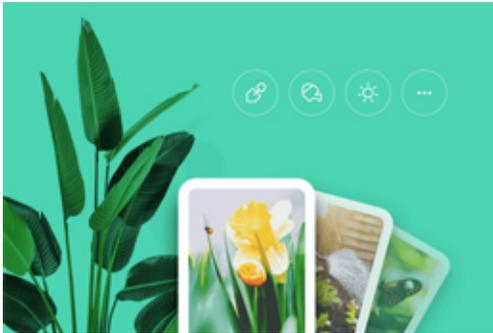
PLANTSNAP

PlantSnap has partnered with Snapchat to allow users to identify 600,000+ plants in over 30 languages. It's super easy to use and has both a free and premium version, so no matter where you are, you can learn more about the plant life around you.



LEAFSNAP

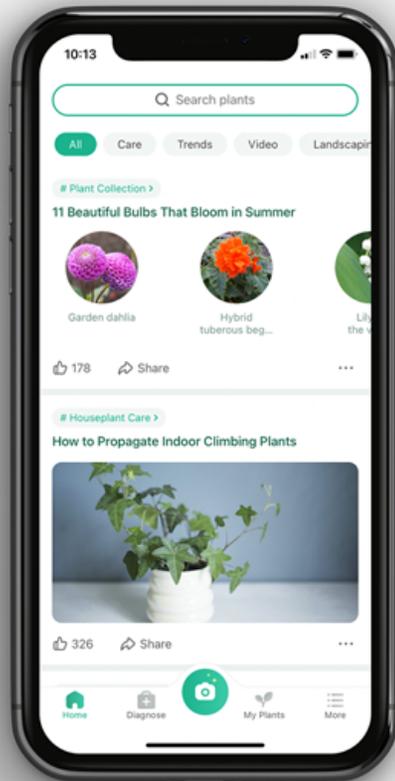
Leafsnap operates as a field guide to all things foliage. Developed with experts from Columbia University, the University of Maryland, and the Smithsonian Institution, the app uses high-tech AI to identify plants based on only photos of their leaves.



IDENTIFY PLANTS WITH A SNAP

Simply take or upload a photo of any plant, get instantaneous and accurate plant ID results with this revolutionary artificial intelligence technology.

PictureThis: a botanist in your pocket



SUPER RICH DATABASE

Get access to a huge growing database of plants with everything you want to know about the plant, from watering frequency to pest and disease control, from literature to fun facts.

TOXIC PLANT IDENTIFICATION

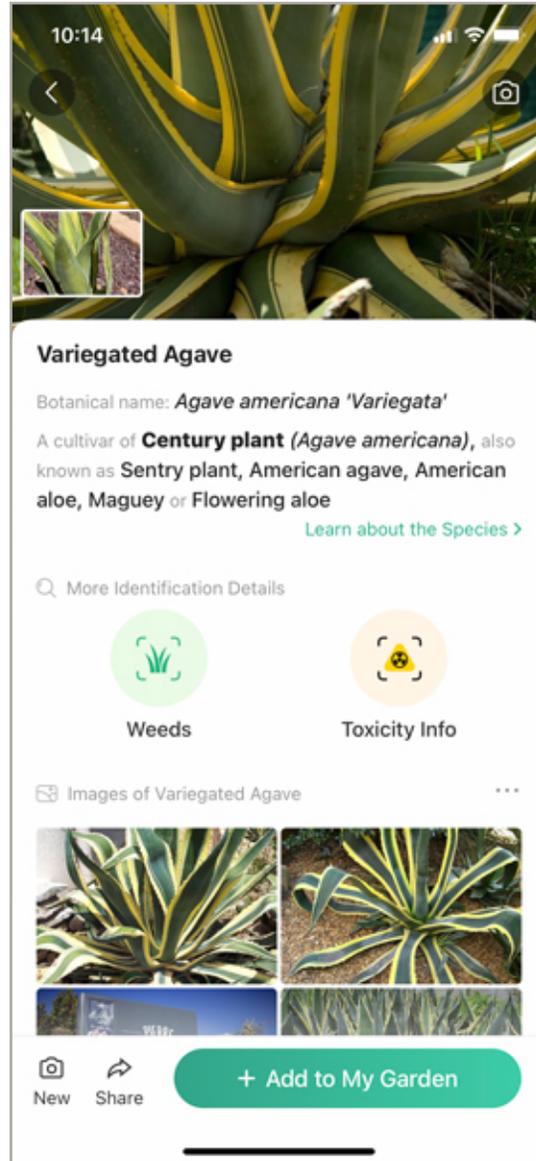
Identify and protect pets from toxic plants

AUTO PROBLEM DIAGNOSIS

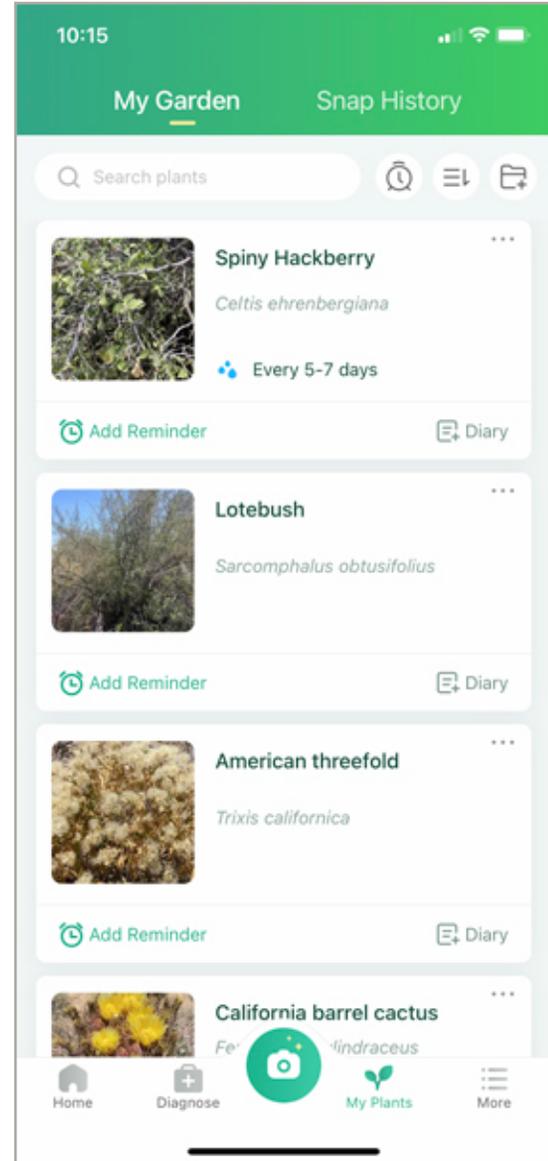
Take pictures of sick parts of plants to get problem causes and treatment suggestions.



1 - POINT & SNAP



2 - GET RESULTS



3 - SAVE TO LIBRARY



A Sample Weedwalk

- Why pay for what you can get for free?
- Nature gives us everything we need for free.
- There's a way you can put food and medicine on your table for a lifetime.

Here's a sample of common plants readily available for foraging in season from Region 6 (Great Lakes) and Region 13 (Desert Cactus) areas.





Spiny or Desert Hackberry

Celtis ehrenbergiana

GENERAL INFORMATION

A perennial shrub that blooms in spring and summer with bright orange berries ripening late summer to early fall. Ranges from Arizona to Texas and parts of Florida and is the oldest known source for human foraging spanning millenia.

AS A WILD FOOD

The ripe fruit is quite sweet, orange in color, with a seed in the center. It can be eaten raw (seed and all), mashed then baked into a calorie-laden snackbar, or boiled in some water to make a syrup.

AS AN HERBAL MEDICINE:

Traditional cultures have long treasured the hackberry to treat abnormal menstrual flow, colic, peptic ulcers, diarrhea and dysentery as well as being used as a pain killer.





Yellow Paloverde

Cercidium microphyllum

GENERAL INFORMATION

This tree flourishes in the Sonoran desert and other arid regions in the Southwest. Palo Verde is Spanish for green stick referring to the tree's green bark.

AS A WILD FOOD

The tree produces edible flowers and beans. Collect the pods either before or after they dry. The beans can be eaten right off the tree raw, and can also be blanched and then can be pureed, frozen, canned, brined, fermented, or eaten in salads. Mature seeds can be toasted and ground into flour for many uses. Palo Verde beans taste like a sweet pea and are 41% protein.

AS AN HERBAL MEDICINE:

Indigenous people brewed the flowers and leaves as a tea remedy for arthritis, diabetes, bronchitis, and asthma. They also used it as a rub to treat bruises and sprains.





Ironwood Tree

Celtis ehrenbergiana

GENERAL INFORMATION

A hardy legume tree, ironwood's range closely matches the boundaries of the Sonoran Desert, the only place in the world where it occurs.

AS A WILD FOOD

Brown, beanlike seedpods grow after the flowers, each containing 1 to 4 shiny brown seeds. These seeds provide high-protein nourishment. You can toast and grind the seeds to make protein-rich flour, or gruel that tastes suspiciously like peanut butter.

AS AN HERBAL MEDICINE:

Native Americans ground the roots into a paste to cure gum infections. A tea can be made from the crushed leaves to help relieve asthma, and the inner bark was used as an emetic, or agent to induce vomiting.





Buckhorn Cholla

Cylindropuntia acanthocarpa

GENERAL INFORMATION

Buckhorn chollas are generally around three feet tall, but can grow to 13 feet tall and get their name because they resemble deer antlers. They can be found in central and western Arizona and northern Sonora up to an elevation of 4,000 feet.

AS A WILD FOOD

Yep, cholla buds are edible. More than edible, in fact. Properly prepared, they taste like a fantastical combination of green bean, artichoke heart and asparagus.

AS AN HERBAL MEDICINE:

Two teaspoons of buckhorn cholla buds have more calcium than an entire glass of milk, so they are good to treat calcium deficiency and are also beneficial to nursing mothers.





California Barrel Cactus

Ferocactus cylindraceus

GENERAL INFORMATION

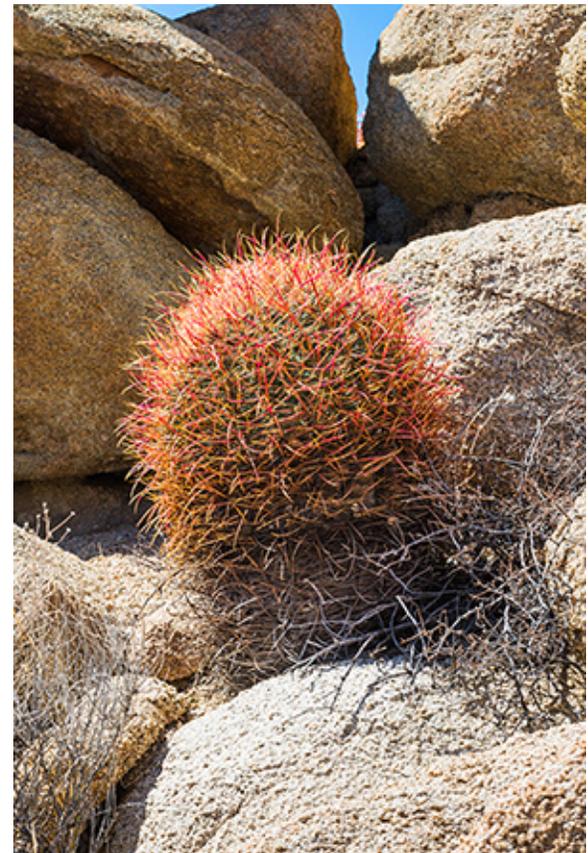
This cactus goes by several common names, including Arizona barrel, red barrel, miner's compass, and compass barrel cactus. However, all these names refer to the same cactus, a native to the Mojave and Sonoran deserts in the American southwest.

AS A WILD FOOD

Their fleshy yellow interior surrounds a cavity that is filled with small black seeds, much like poppy seeds. The fresh fruit is tart and lemony with hints of rose and guava, while the seeds impart a neutral nutty flavor.

AS AN HERBAL MEDICINE:

Barrel cactus fruit is rich in vitamin A and vitamin C. Its pulp can be applied externally as an analgesic. Mahuna natives used extracts from the cactus to prevent salivary gland swelling.





Saguaro Cactus

Carnegiea gigantea

GENERAL INFORMATION

While the saguaro cactus has become a symbol of the American West, the saguaro cactus will only grow in the Sonoran desert. As a desert indicator species, the range of the saguaro cactus is limited to southern Arizona.

AS A WILD FOOD

The Gila River people harvest ripe saguaro fruit in the late spring to eat raw and make wines, jams, and jellies.

AS AN HERBAL MEDICINE:

Saguaro fruit has high moisture retention to hydrate your body and are also loaded with Vitamin C, Vitamin B12 and other key minerals to nurture your organs and enable better functioning. These fruits are also loaded with antioxidants to shield your body from many infections and disorders.





Burdock

Arctium (lappa, minus and others)

GENERAL INFORMATION

Most common species are greater burdock and lesser burdock. All produce "pricklebur" seedheads that stick to your clothing (these were what inspired a fellow to invent Velcro). It grows in most of the U.S. and in southern Canada.

AS A WILD FOOD

Leaves are edible; flower stalks are edible, and the roots are edible in the summer and fall of the first year and in the spring of the second year (before flowering).

AS AN HERBAL MEDICINE:

Leaves can be harvested anytime; roots dug in the fall of the first year or spring of the second year. Leaves can be used as a drawing poultice (for splinters, boils, etc.). Roots are useful for detoxifying the body and promoting good digestion. Also used for staph infections, various skin ailments, and some cancers. For detox, use with a diuretic herb like dandelion; otherwise it tends to expel toxins through the skin via pustules.





Chickweed

Stellaria media

GENERAL INFORMATION

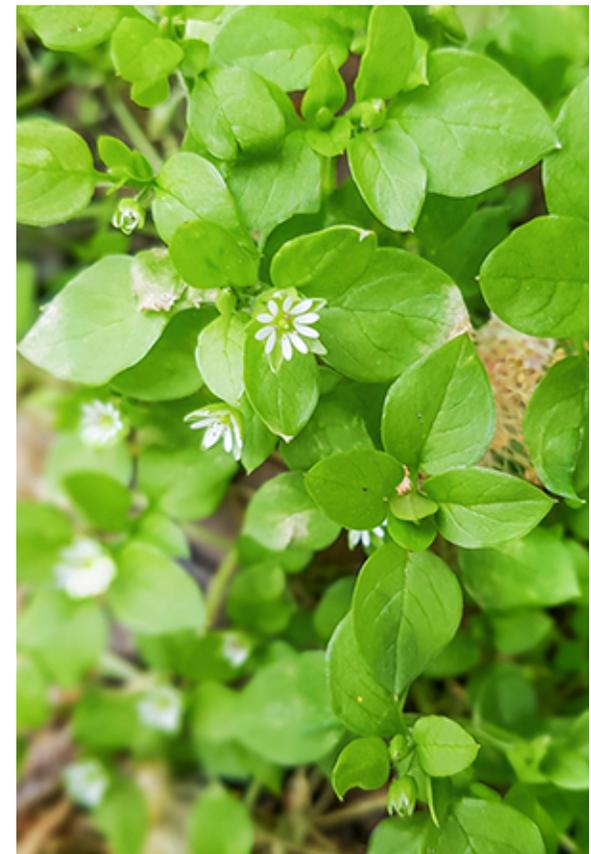
Annual, usually not very tall (but can get to a foot), grows in early spring to late spring before dying back. Small leaves and tiny white flowers. Grows throughout North America.

AS A WILD FOOD

Entire above-ground portion of plant, raw or cooked (drink any cooking water as a nourishing tea). Also an excellent food for chickens.

AS AN HERBAL MEDICINE:

Tonic herb, rich in vitamins and minerals. Useful as a poultice for wounds, insect bites and stings, and eczema.





Hawthorn

Crataegus (monogyna, oxyacantha, laevigata, and many others)

GENERAL INFORMATION

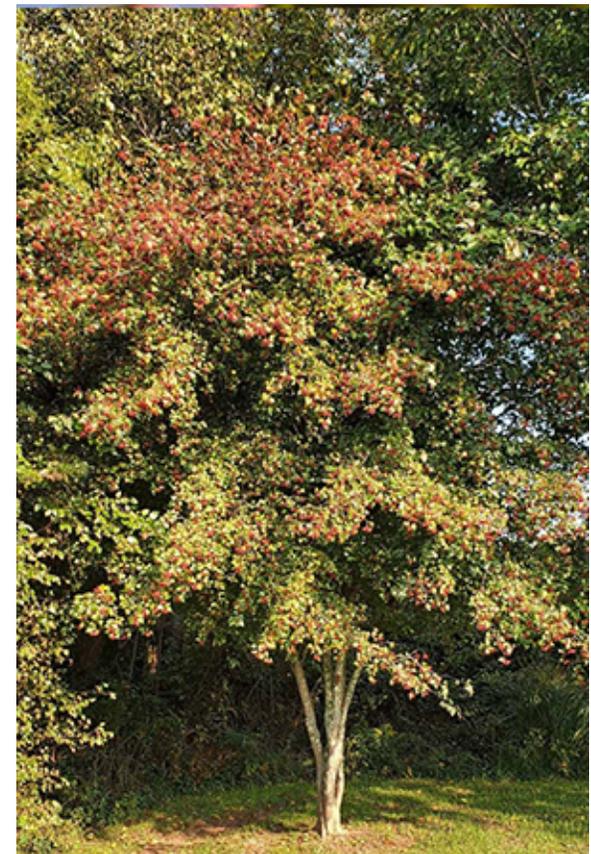
Shrub or smallish tree that grows wild in Europe and much of the United States (Midwest, East Coast, New England, California, Pacific Northwest) and eastern Canada. There's a legend that St. Joseph of Arimathea traveled to England and stuck his staff into the ground there; it rooted and flowered, and the Benedictine Order eventually built Glastonbury Abbey nearby.

AS A WILD FOOD

Ripe berries are harvested after the first frost. High in Vitamin C, B vitamins, and antioxidants. Used in jellies, jams, baking, and tea.

AS AN HERBAL MEDICINE:

The flowers, berries, and leaves can all be used. Flowers and leaves are harvested in the spring during early flower stage; berries are harvested after first frost. Heart tonic; used for various cardiovascular conditions such as high blood pressure, low blood pressure, arteriosclerosis, and congestive heart failure.





Lamb's Quarters/White Goosefoot

Chenopodium album

GENERAL INFORMATION

Can grow 5 feet tall and end up spindly (if crowded) or shaped like a Christmas tree (if given lots of space). Powder on leaves especially on the back of leaves. Grows in many places throughout the US and Canada.

AS A WILD FOOD

Leaves collected spring through fall. Eat raw (in moderation because of oxalic acid content) or cooked (discard the cooking water). Seeds are also edible. Useful for feeding chickens, sheep, and pigs. There are certain places from which you should never collect lamb's quarters

AS AN HERBAL MEDICINE:

None of my books list any. You can find medicinal uses on the internet, but I'd be wary of relying on that information. This plant is best used for food and not medicine.





Nettles

Urtica (dioica and urens)

GENERAL INFORMATION

Weedy upright perennial plant that causes "nettle rash" that burns and stings, and it spreads like crazy via its roots and the tons of seed produced by each plant. Grows in many parts of the U.S. and Canada.

AS A WILD FOOD

Leaves harvested in early to mid spring, before the plant starts going to seed. Can cut two or three times in the spring before the plants go to seed. Used for tea, or cooked like spinach or greens (save and drink the cooking water as a tea). Can be used for making vegetable rennet for cheesemaking.

AS AN HERBAL MEDICINE:

Leaves harvested as for food use. Tonic herb, extremely high in many vitamins and minerals. Good for nursing mothers. Helps with seasonal allergies.





Pigweed

Amaranthus retroflexus

GENERAL INFORMATION

Annual. Grows throughout North America (from north to south, and from coast to coast).

AS A WILD FOOD

Leaves harvested throughout the growing season and cooked like spinach. Seeds harvested at maturity and ground into flour (this is amaranth flour that costs a fortune at the health-food store).

AS AN HERBAL MEDICINE:

Leaves harvested throughout growing season. Used for digestive complaints, ulcers, and heavy menstruation.





Reap the benefits

- Harvesting
- Preparation
- Storage

There are few things as gratifying as consuming and using plants that you've picked yourself from nature's bounty





Pine infusion

Use this mixture to soothe coughs or simply as a forager's cocktail

1. Clip off a few small branches of pine, spruce, or fir. Avoid yew, which is toxic.
2. Cover the plant matter with your favorite spirit (we recommend tequila for margaritas) or apple cider vinegar. Add a few tablespoons of honey or maple syrup.
3. Cover and let steep for one week, shaking once daily.
4. Mix your infused alcohol with lime juice and orange juice for a complex and refreshing cocktail.





Purslane concoctions

If you see this weed growing in your yard, don't pull it!

USES

Purslane is a natural anti-inflammatory, antibacterial and antifungal, much like garlic.

POULTICE

For treating skin disorders, burns, or insect bites, apply it directly to the affected area, binding it with a cloth. Crush the purslane with a mortar and pestle, before applying, so that the inner part of the leaf and the sap can make contact with the infection. The nutrients will then be absorbed directly through the skin.

TINCTURE

Crush the leaves and place them in a pint jar, filling the jar 1/3 to 1/2 of the way full; don't pack the leaves down. Then fill the jar with alcohol and seal it shut. Store the jar in a cool dry place and shake daily for three weeks or more. When the tincture is done, filter out the leaves and store the final product in a colored dropper bottle. Used to treat ear aches.





Pickled prickly pear

Nopales are a mainstay in Mexican food and on other Sonoran desert menus



1. Trim away any tough edges of the cactus pad. Cut the pad into planks as wide as the height of the fill line on your jar (e.g., for most half-pint jars, that's about 4 1/2 inches). Cut the planks into 1/2-inch-wide strips. Place in a large nonreactive bowl and toss with a liberal amount of kosher or sea salt. Let stand at least an hour. Rinse thoroughly with water and pat dry. Repeat if desired.
2. Prepare your water bath canner and wash 4 half-pint jars and lids with warm, soapy water.
3. Trim the top and root end of the onion, halve, and cut pole-to-pole into 1/4 strips.
4. Trim the stem end off the jalapeño, halve, and cut into thin strips.
5. In a nonreactive pot, combine the vinegar, salt, peppercorn and coriander seed. Bring to a boil, then reduce heat and simmer for 10 minutes.
6. Pack the cactus strips, onion, and jalapeño into clean jars. Pour the vinegar brine into the jars, leaving 1/2-inch headspace. Apply lids and rings, and process in the water bath canner for 10 minutes.

INGREDIENTS

12 ounces cactus pads
 4 ounces onion
 1 jalapeño
 1 cup water
 1 cup apple cider vinegar
 2 tablespoons salt
 1 teaspoon peppercorns
 1 teaspoon coriander seeds



Rose petal tea

Except for being pretty, roses are mostly useless, however...

Rugosa roses, dog roses, pasture roses, and other wild-form roses have many culinary and medicinal uses. The petals and fruits ("hips") can be used fresh or dried.

Culinary Uses

Petals and fruits can be made into tea and jelly. They can be used in baking, and the hips can be made into fruit leather. Here is a recipe for rose petal tea:

- 1 1/2 cups rose petals
- 3 cups water
- Sugar, honey, or maple syrup to taste

Choose fresh rose petals. Strip the flower gently under running water, then place the petals in a saucepan. Cover with the water and boil for five minutes, or until the petals become discolored. Strain into teacups and add sweetener to taste. Serves 4.





Queen Anne's Lace in soup

Use *“Wild Carrot” as a great addition to soups and stews*

The roots can be added to soups and stews. First-year roots are the most palatable. Second-year roots, especially once the plant sends up its flower stalk, can be quite woody; but they would probably still be edible if cooked long enough in plenty of liquid. A better use for the second-year plants is to gather the seeds and plant them in the garden the following spring; reportedly, when grown "on purpose," they produce roots that are good-sized and succulent. The leaves of Queen Anne's lace are also edible; they can be chopped and cooked with cultivated greens like beet, spinach, or kale; or with other wild greens such as dandelion, lamb's quarters, and pigweed. Although the roots and leaves are safe to eat, the seeds should not be eaten, as they have traditionally been used as an abortifacient.

Poisonous look-alike warning: There are a few plants that look like Queen Anne's Lace, so do not eat anything unless you're sure it's Queen Anne's Lace. One such poisonous look-alike is Poison Hemlock (*Conium aculatum*). The flowers and leaves look similar. However, Queen Anne's Lace has stems that are hairy; and the leaves and roots when cut or crushed have the distinct smell of carrots. On the other hand, Poison Hemlock has smooth stems with purple spots on them ("maculatum" means "spotted"), and the leaves and roots when cut or crushed have an "off" smell that is nothing like the smell of carrots. In fact, none of the poisonous look-alikes has the smell of carrots.





The versatile mallow

The Common Mallow (malva neglecta, malva sylvestria)

Culinary Uses

Use the flowers and leaves in salads. Use the immature seed pods (called "cheeses" because they look like tiny wheels of cheese) as a fresh nibble; or you can pickle them or brine them and use them as a substitute for capers. Fresh leaves can be cooked like spinach; dried leaves can be crushed and added to soups as a thickener. (Mallow is related to okra, which has long been used as a soup thickener). Fresh roots can be chopped and added to soups and stews along with other vegetables, or they can be chopped and dried for later use.

Medicinal Uses

Leaves and flowers are harvested during the early flowering stage; roots may be harvested at any time. All parts may be used fresh or dried. They may be made into a cold infusion, a tea, or a tincture; useful for inflammatory conditions of the upper respiratory tract, gastrointestinal tract, and urinary tract (ex. colds, coughs, ulcers, UTIs). The leaves and roots may be made into a poultice for fresh wounds and burns; and also into a "drawing" poultice for splinters, infected wounds, puncture wounds, etc.

