

A young boy with short brown hair and a wide smile is holding a morel mushroom in his right hand. He is wearing a brown jacket. The background is a lush green forest with tall grass and many thin tree trunks. The lighting is bright, suggesting a sunny day.

Foraging for Market: Morels and Greens

by Sarah Foltz Jordan and Jill Beebout
Practical Farmers of Iowa, January 2018

Why Wild?



- Nutritious
- Delicious
- Local
- Sustainable
- Free
- Always found in one of the best places to be: *the great outdoors!*

Lamb's Quarter
Chenopodium album

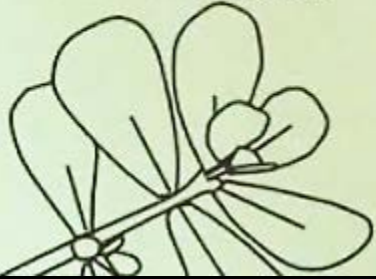


Lamb's quarter (*Chenopodium album*):
Excellent flavor both cooked or raw, better than spinach and easier to grow ☺



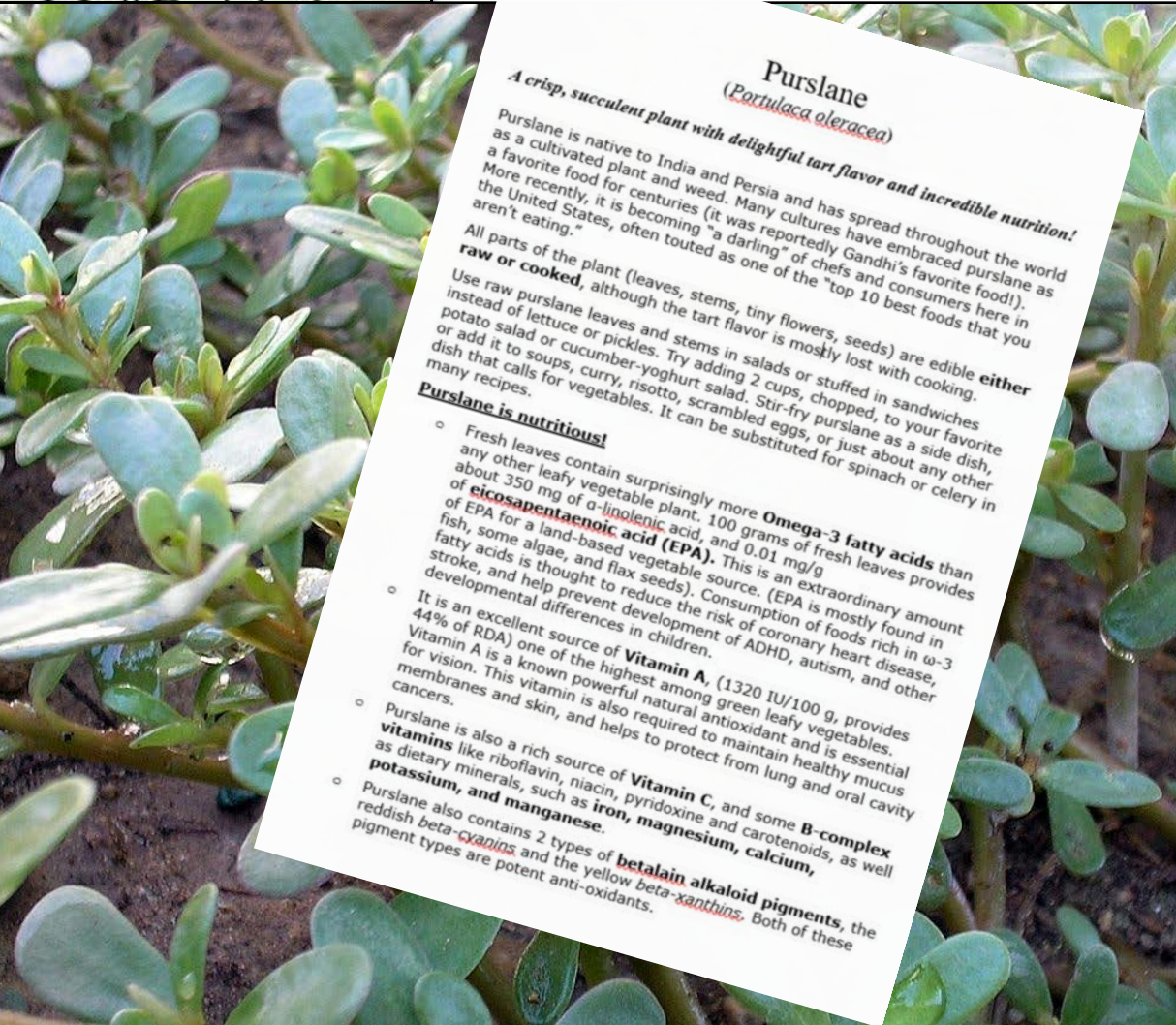
- European species
- Disturbed soils
- Fast growing
- Pleasant, mild taste
- Nice texture
- Cooked or raw
- High in vitamins A & C, calcium
- Seeds edible too
- “Hen Fat”, “Bacon Weed”
- Can accumulate nitrates

Purslane
Portulaca oleracea



Purslane (*Portulaca oleracea*):

A crisp, succulent plant with tart flavor and incredible nutrition!



Purslane
(*Portulaca oleracea*)
A crisp, succulent plant with delightful tart flavor and incredible nutrition!

Purslane is native to India and Persia and has spread throughout the world as a cultivated plant and weed. Many cultures have embraced purslane as a favorite food for centuries (it was reportedly Gandhi's favorite food!). More recently, it is becoming "a darling" of chefs and consumers here in the United States, often touted as one of the "top 10 best foods that you aren't eating."

All parts of the plant (leaves, stems, tiny flowers, seeds) are edible **either raw or cooked**, although the tart flavor is mostly lost with cooking. Use raw purslane leaves and stems in salads or stuffed in sandwiches instead of lettuce or pickles. Try adding 2 cups, chopped, to your favorite potato salad or cucumber-yoghurt salad. Stir-fry purslane as a side dish, or add it to soups, curry, risotto, scrambled eggs, or just about any other dish that calls for vegetables. It can be substituted for spinach or celery in many recipes.

Purslane is nutritious!

- Fresh leaves contain surprisingly more **Omega-3 fatty acids** than any other leafy vegetable plant. 100 grams of fresh leaves provides about 350 mg of **α-linolenic acid**, and 0.01 mg/g of **eicosapentaenoic acid (EPA)**. This is an extraordinary amount of EPA for a land-based vegetable source. (EPA is mostly found in fish, some algae, and flax seeds). Consumption of foods rich in ω-3 fatty acids is thought to reduce the risk of coronary heart disease, stroke, and help prevent development of ADHD, autism, and other developmental differences in children.
- It is an excellent source of **Vitamin A**, (1320 IU/100 g, provides 44% of RDA) one of the highest among green leafy vegetables. Vitamin A is a known powerful natural antioxidant and is essential for vision. This vitamin is also required to maintain healthy mucus membranes and skin, and helps to protect from lung and oral cavity cancers.
- Purslane is also a rich source of **Vitamin C**, and some **B-complex vitamins** like riboflavin, niacin, pyridoxine and carotenoids, as well as dietary minerals, such as **iron, magnesium, calcium, potassium, and manganese**.
- Purslane also contains 2 types of **betalain alkaloid pigments**, the reddish **beta-cyanins** and the yellow **beta-xanthins**. Both of these pigment types are potent anti-oxidants.

- Native to India
- Disturbed soils
- Great, crisp texture
- Tart flavor
- RAW or cooked
- Entire plant edible
- Purslane pickles!
- High in omega-3 fatty acids
- Potent antioxidants
- Great for market sales

Curly Dock
Rumex crispus



Curly Dock (*Rumex crispus*):

Abundant, tart leaves, excellent cooked.



- Native to Europe & Western Asia
- Very popular, abundant green
- Tart flavor
- Young leaves only
- COOKED is best

Chickweed
Stellaria media



Chickweed (*Stellaria media*):
*Very pleasant flavor, excellent fresh in
salads/sandwiches!*



- Native to Europe
- Very pleasant flavor
- Cool weather plant
- Excellent FRESH, packed on a sandwich

Violet
Viola species



Violet (*Viola* spp.):

Small but highly nutritious leaves, with lovely edible flowers



- Native to Europe North America
- Young leaves and flowers
- Trailside nibble, salad filler
- Vitamin C and more

Pigweed
Amaranthus retroflexus



Pigweed (*Amaranthus retroflexus*):

Mellow-flavored leaf, good cooked or raw



- Native to Europe
- Disturbed soils
- Leaves and seeds
- “Pot herb”, “filler”
- COOKED is best
- Caution: can accumulate nitrates

Ostrich Fern
Fiddlehead
Matteucia struthiopteris



Ostrich Fern Fiddlehead

(*Matteucia struthiopteris*):



- Native to North America
- Very popular gourmet springtime food
- Cook like asparagus
- Distinct celery-like groove on stalk
- AVOID LOOK ALIKE FERNS (cinnamon & interrupted ferns do NOT have groove)

Wood Sorrel
Oxalis stricta



Wood Sorrel (*Oxalis stricta*):

Super sour leaves and pretty yellow flowers, best raw

- Super sour (oxalic acid)
- Kids love it!
- RAW is best
- Both purple and green varieties
- Clover is a look alike, but also edible
- Sheep Sorrel is equally sour and delicious



Plantain
Plantago major



Plantain (*Plantago major*):

A mushroom-tasting leaf with incredible nutrition



- Native to Europe
- Disturbed or compacted soils
- “white man’s foot”
- Very pleasant flavor
- Young leaves only
- Raw is best; salads, pestos, etc.

Garlic Mustard
Alliaria petiolata



Garlic mustard (*Alliaria petiolata*):
*Highly invasive- eat it up! Strong flavored,
great in pesto*



- NOXIOUS WEED: ERADICATE
- Garlic flavor
- Young leaves only
- Raw is best; salads, pestos, etc.
- Avoid spread of seeds, pull by roots
- Avoid harvesting from chemically treated areas

Nettles

Urtica dioica (Stinging)
Laportea canadensis (Wood)



Nettles (*Urtica* & *Laportea*):
*Exceptionally nutritious and delicious
leaves. Amazing in soups or teas*



- Native to North America
- 2 species; easy to distinguish, both amazing
- Very popular, abundant
- HIGHLY nutritious (iron, calcium, potassium, magnesium, vitamins A & C)
- Young leaves COOKED (soups, tea, quiche, white sauces)
- Great for market sales, fresh or dry



Dandelion (*Taraxacum officinale*):

Bitter, cleansing greens; delicious root (roasted); and fun edible flower



- Native to Europe & Asia
- ENTIRE PLANT is edible
- Root: roasting
- Leaves: fresh eating
- Flowers: fresh, cooked, wine
- Young leaves best
- Bitter green for improving digestion; spring cleansing; liver

Ramps/Wild leeks (*Allium tricoccum*):

Leaves and bulb have a strong garlic-y flavor. One of the first things to “green” in the Spring.



Henbit (*Lamium amplexicaule*):

Leaves and blooms have a “green” flavor with mild herbal overtones.



Ground Ivy (*Glechoma hederacea*)

All 3 are edible members of the mint family, though Dead Nettle should be avoided during pregnancy

Elder (*Sambucus canadensis*):

Flowers and berries are delicious and nutritious. Great for jams/jellies & syrups



SO MANY MORE... roots, berries, stems, nuts, seeds, tea leaves, flowers

- Siberian elm seeds
- Jerusalem artichoke tuber
- Burdock root
- Cattails!!!
- Grape leaves
- Linden leaves
- Wild rice
- Black walnuts
- Sumac berries
- Thistle stalks
- Daisy leaves
- Day lily flowers
- Roses; Red clover
- New Jersey Tea
- Anise Hyssop
- Mountain Mint
- Raspberry leaves

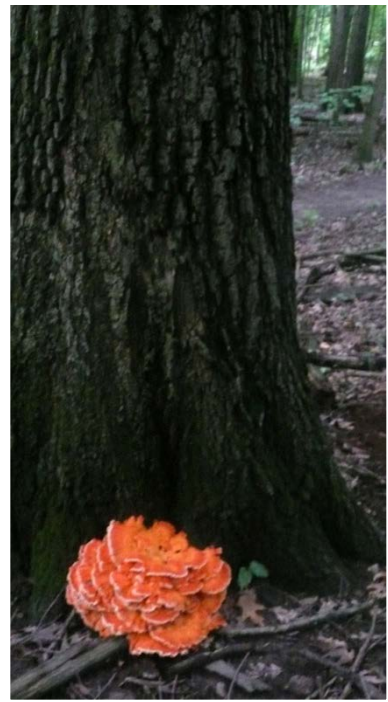


Edibles Mushrooms... Over 100 spp.



But we are focusing on just a couple

Sulphur Shelf
(Chicken of the Woods)
Laetiporus sulphureus



Hen of the Woods

Grifola frondosa



Morels



Black
Morchella
elata



Half-free
Morchella
punctipes



Yellow/Grey
Morchella
esculenta

False Morels



Gyromitra caroliniana



Gyromitra brunnea



Morel



False Morel



Half-free Morel
Morchella punctipes



Michael Kuo

 *Verpa* False Morels

Foraging and the Law

Private Land: It is illegal to trespass on another person's property. You must have permission from the landowner or lease-holder before entering or his or her land, even if the land is not posted or fenced. Penalties include a \$75 fine or up to 30 days in jail.

A railroad right-of-way is considered private property.

Public land: "Mushrooms, asparagus, nuts, fruits and berries are the only types of plant material that can be removed and harvested in state parks and recreation areas. ... Ginseng cannot be harvested in Iowa state parks or state preserves." Iowa DNR website

https://www.iowadnr.gov/Portals/idnr/uploads/parks/park_regs.pdf

Iowa Food Code & Mushrooms

Iowa Food Code

31.1(3) Morel mushrooms. Section 3-201.16, paragraph (A), is amended by adding the following:

“A food establishment or farmers market potentially hazardous food licensee may serve or sell morel mushrooms if procured from an individual who has completed a morel mushroom identification expert course. Every morel mushroom shall be identified and found to be safe by a certified morel mushroom identification expert whose competence has been verified and approved by the department through the expert’s successful completion of a morel mushroom identification expert course provided by either an accredited college or university or a mycological society. The certified morel mushroom identification expert shall personally inspect each mushroom and determine it to be a morel mushroom. A morel mushroom identification expert course shall be at least three hours in length. To maintain status as a morel mushroom identification expert, the individual shall have successfully completed a morel mushroom identification expert course described above within the past three years. A person who wishes to offer a morel mushroom identification expert course must submit the course curriculum to the department for review and approval.

Food establishments or farmers market potentially hazardous food licensees offering morel mushrooms shall maintain the following information for a period of 90 days from the date the morel mushrooms were obtained:

- “1. The name, address, and telephone number of the morel mushroom identification expert;
 - “2. A copy of the morel mushroom identification expert’s certificate of successful completion of the course, containing the date of completion; and
 - “3. The quantity of morel mushrooms purchased and the date(s) purchased.
- “Furthermore, a consumer advisory shall inform consumers by brochures, deli case or menu advisories, label statements, table tents, placards, or other effective written means that wild mushrooms should be thoroughly cooked and may cause allergic reactions or other effects.”

Iowa Food Code & Mushrooms

What does the morel rule mean?

- Anyone can forage for wild mushrooms for personal consumption.
- Any morel mushrooms that are sold must be inspected by a person who is certified by the state through the Morel Identification class. That person can be anyone in the sales chain: the forager, broker, retailer, chef ect.

Certification classes are offered through ISU Extension in Ames every spring

- Certification is good for 3 years
- Info on dates available online (online registration available soon)
<https://www.ipm.iastate.edu/morel-mushroom-certification>

- Other wild mushrooms

- There is no legal framework in the Iowa Food Code for selling any wild harvested mushrooms except morels in the state.
- Cultivated mushrooms are not restricted in this way.

BGF “Wild Things”

- Fresh bundled or container sales
 - Ramps: \$4 bundle (4-6 ramps with leaves)
 - Morels: \$25/half lb, \$45/lb (in plastic clamshells)
 - Nettles: \$5/half lb (top growth, washed & bagged)
 - Purslane: \$3 lg bundle
 - Wild Things Mix: \$4 lg bundle or \$5/half lb bag
 - amaranth, lambsquarter, purslane, chickweed, violet leaf (washed & bagged)

More BGF “Wild Things”

- **Added to wild mix and salad mix when available/edible**
 - **sour dock (very early spring)**
 - **Henbit**
 - **Chickweed**
 - **Wild lettuce (very early spring)**
 - **Purslane**
 - **edible flowers (violets, red clover, bergamot)**

Not so “Wild”

- **Wild harvesting is very time consuming, especially if you are harvesting sustainably. Unless the value is high (like morels), often it isn't economically viable.**
- **Foraged foods often require substantial customer education**
 - **“Isn't that the weed that grows in my sidewalk?”**
 - **Label bags of Stinging Nettles**
 - **Eating seasonally-Cream of Weed soup**
 - **“Weed Eater” t-shirts**
- **Euell Gibbons Retrospective Forage Box**
 - **CSA adventure ???**

Wild About Foraging

- **Take care to always leave the area better than you found it.**
 - **Pack out litter. Leave nothing but footprints.**
- **Only harvest a small amount (10%) from native plants like ramps and fiddleheads, but take as much as you want of non-native weeds like purslane & chickweed!**
- **Take care when foraging with children. Be clear that they only eat plants with a knowledgeable adult and only in approved places.**

Foraging is an awesome way to maintain/improve your contact with nature. It encourages us to observe and learn about the natural world and participate in it in a fulfilling (and tasty) way. It offers a wealth of nutrition and flavors that most people never encounter and thus is a fun experience for ourselves, our families and customers.

Resources



GREENS, ROOTS, BERRIES:

- **The Foragers Harvest by Sam Thayer**
- **Abundantly Wild by Teresa Marrone**
- **The Joy of Foraging... by Gary Lincolf**
- **Stalking the Wild Asparagus by Euell Gibbons**
- **Peterson's Edible Wild Plants (ok)**

MUSHROOMS:

- **The Falcon Guide to Mushrooms (Miller & Miller)**
- **Edible Wild Mushrooms of NA (Fischer & Bessette)**
- **Mushrooms of the Upper Midwest (Marrone & Yerich)**
- **Mushrooms In Your Pocket (Huffman & Tiffany)**
- **The Mushroom Expert website (Michael Kuo, IA based)**

FACEBOOK GROUPS:

- **Midwest Wild Edibles & Foragers Society Facebook Page**
- **Several other local groups on these topics**