

CERRADO & CHACO SAVANNA WOODLAND PLANT SURVIVAL GUIDE

South America • USDA-EQUIVALENT ZONES 8-12 • KÖPPEN Aw / BSh

LAND + WATER

REGIONAL HABITAT ILLUSTRATION — NOT AN ID PHOTO

USEFUL

EDIBLE

MEDICINAL

POISONOUS

IDENTIFY • EAT • BUILD • HEAL • AVOID

Illustrations show habitat and form; verify every plant with current regional photographs and expert sources.

REGION AT A GLANCE

A continental bioclimatic region, not a destination or a promise that every listed plant occurs at every site.



Continent: South America USDA-equivalent hardiness: 8-12 Köppen: Aw / BSh
Regional habitat: Fire-shaped savanna, thorn woodland, palm marsh and gallery forest
Zone warning: hardiness describes winter minimum temperature only; rainfall, heat, soils, fire, elevation and seasonality still control the flora.

FIELD PRIORITIES

- Use the continent, climate band and habitat as filters — never as proof of identity.
- Match at least three independent traits and rule out every dangerous look-alike before harvest.
- Treat water plants as both botanical and water-quality decisions; parasites, sewage and algal toxins can defeat correct identification.
- Take material from deadfall or abundant growth first. Roots, bark and whole plants are the most destructive harvests.
- Medicinal notes document traditional use only; the guide gives no dosing and does not replace medical care.

SURVIVAL STANDARD

A correct plant name is only the beginning. Also verify plant part, maturity, preparation, dose, contamination, legal access and local cultural protocol. When any one of those is uncertain, do not consume or medicate.

POSITIVE IDENTIFICATION AND PRACTICAL USE

The illustrations are form diagrams. The linked POWO and iNaturalist pages provide current photographs and taxonomic context.

- 1. PLACE**
Confirm continent, elevation, water regime, soil and disturbance.
- 2. FORM**
Tree, shrub, vine, herb, grass, sedge, palm, fern, succulent or aquatic.
- 3. LEAF**
Arrangement, veins, edge, hairs, glands, sap, odor and underside.
- 4. STEM / BARK**
Thorns, pith, nodes, buds, lenticels, fibers, latex and branching.
- 5. FLOWER / FRUIT**
Petal count, inflorescence, fruit attachment, seed and maturity.
- 6. EXCLUDE**
Name every dangerous look-alike and explain why it is different.
- 7. VERIFY**
Use current regional flora, qualified local knowledge and several photos.

AUTOMATIC STOP LIST

No tasting to identify.
No unknown roots, bulbs or white umbels.
No unknown milky sap.
No raw wetland foods.
No medicinal dose experiments.
No smoke from unknown toxic wood.

USEFUL-PLANT HIERARCHY

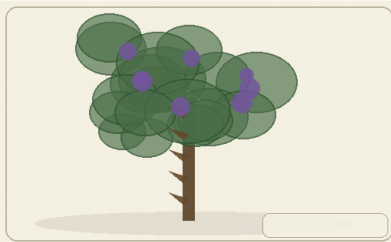
1. Deadfall and shed bark.
2. Abundant annual greens and fruit.
3. Pruned shoots and leaves.
4. Small stems from common thickets.
5. Roots, bark and whole plants only with permission and no safer substitute.

USEFUL PLANTS FOR TOOLS, FIRE AND SHELTER

Wood, fiber, tinder, bow-and-arrow components, friction fire, containers and construction.

ARID ACACIAS

USEFUL MATERIAL



Stylized form diagram — not an identification photograph

Vachellia / Senegalia spp.

IDENTIFY: Feathery compound leaves; paired or hooked thorns; yellow or white puffball flowers; pods.

HABITAT / SEASON: African, Arabian and Australian savannas, dry rivers and deserts. Season: Wood year-round; gum and pods seasonal.

SURVIVAL USE: Dense wood for bows, handles, stakes and hot coals; gums of selected species have documented food or adhesive use.

CAUTION: Species vary in cyanogenic chemistry and pod edibility. Thorns cause deep punctures.

LOOK-ALIKES: Prosopis/mesquite and other mimosoid legumes require pod and thorn comparison.

TASKS: bow wood, handles, fuel, adhesive

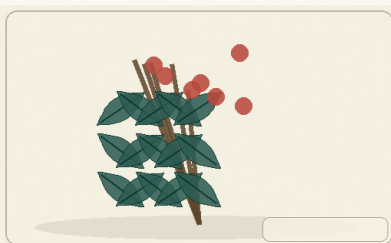
Verified images: POWO

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1

WILD RAISINS / GREWIA

USEFUL MATERIAL



Stylized form diagram — not an identification photograph

Grewia spp.

IDENTIFY: Rough toothed leaves; small star-like flowers; lobed orange, red or brown drupes.

HABITAT / SEASON: African savanna, dry woodland and scrub. Season: Fruit seasonal; stems year-round.

SURVIVAL USE: Ripe fruits of selected species are documented food; straight stems provide arrow shafts, bows, cordage bark and tool handles.

CAUTION: Species vary. Confirm fruit and leaf traits; thorny thickets can conceal snakes.

LOOK-ALIKES: Ziziphus has paired thorns and three-veined leaves.

TASKS: food fruit, arrow shaft, bow wood, cordage

Verified images: POWO

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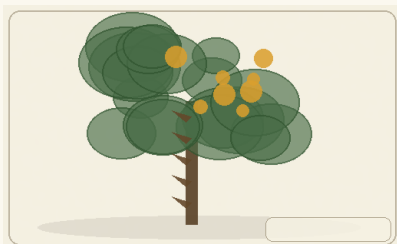
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USEFUL PLANTS FOR TOOLS, FIRE AND SHELTER

Wood, fiber, tinder, bow-and-arrow components, friction fire, containers and construction.

MESQUITES

USEFUL MATERIAL



Stylized form diagram — not an identification photograph

Neltuma / Prosopis spp.

IDENTIFY: Feathery compound leaves, stout thorns, yellow-green flower spikes and long bean pods.

HABITAT / SEASON: Desert washes, floodplains and thorn scrub of the Americas. Season: Pods summer; wood year-round.

SURVIVAL USE: Dry pods of selected species can be milled into sweet meal; dense wood makes durable bows, tools and hot coals.

CAUTION: Pods mold easily and some populations have unpalatable or harmful chemistry. Thorns cause deep punctures.

LOOK-ALIKES: Acacias have different pod and flower forms; confirm local species.

TASKS: food pod, bow wood, fuel, tools

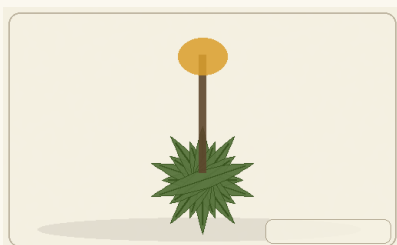
Verified images: POWO

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YUCCAS

USEFUL MATERIAL



Stylized form diagram — not an identification photograph

Yucca spp.

IDENTIFY: Stiff sword leaves in a rosette, often with fibrous margins; tall stalk of cream bell flowers.

HABITAT / SEASON: Deserts, prairies and dry rocky slopes of the Americas. Season: Flowers and young stalks seasonal; leaves year-round.

SURVIVAL USE: Leaf fibers make strong cordage; dry flower stalks are classic bow-drill spindles and tinder; flowers or fruit of some species are documented foods.

CAUTION: Edibility varies by species and plant part. Roots called "soaproot" are not the cassava food. Sharp leaf tips injure eyes.

LOOK-ALIKES: Agaves have thicker succulent leaves and usually a single massive flowering event.

TASKS: cordage, bow drill spindle, tinder, food flower

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4

USEFUL PLANTS FOR TOOLS, FIRE AND SHELTER

Wood, fiber, tinder, bow-and-arrow components, friction fire, containers and construction.

BURITI / MORICHE PALM

USEFUL MATERIAL



Mauritia flexuosa

IDENTIFY: Large fan palm; brown scaly oval fruits; commonly forms swamp groves.

HABITAT / SEASON: Amazon, Orinoco and Guiana savanna wetlands. Season: Fruit seasonal; leaves year-round.

SURVIVAL USE: Fruit pulp is documented food; leaves provide thatch, cordage, baskets and floats.

CAUTION: Wet palm groves can conceal deep mud, caimans and contaminated water.

LOOK-ALIKES: Carnauba has fan leaves but drier habitat and different fruit.

TASKS: food fruit, thatch, cordage, basketry

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5

MATERIAL SELECTION SCREEN

Before cutting, test straightness, grain, dryness, hidden rot, sap or smoke toxicity, and whether the species is protected. Match the material to the load: springy bow wood, straight shaft wood, soft dry hearth board, harder spindle, fibrous cordage, or resin-free cooking fuel.

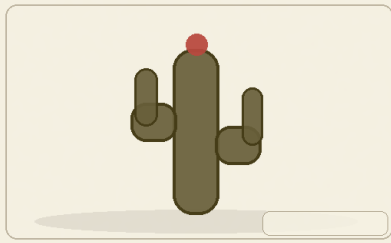
Educational reference — verify locally before eating, treating, cutting or burning any plant.
Cerrado & Chaco Savanna Woodland | 6

LAND-BASED EDIBLE PLANTS

Documented foods on dry or seasonally dry ground. Preparation and contamination still matter.

PRICKLY PEARS

LAND FOOD



Stylized form diagram — not an identification photograph

Opuntia spp.

IDENTIFY: Flattened pads with clusters of fine glochids and often spines; showy flowers; fleshy fruits.

HABITAT / SEASON: Dry Americas, disturbed warm regions and some Mediterranean/African landscapes. Season: Fruit summer-fall; young pads seasonal.

SURVIVAL USE: Ripe fruit and properly de-spined young pads of confirmed species are documented foods; dry woody joints can support fuel.

CAUTION: Invisible glochids embed in skin, eyes and mouth. Some fruits are insipid or seedy; avoid sprayed invasive stands.

LOOK-ALIKES: Chollas have cylindrical joints.

TASKS: food fruit, food pad, fuel

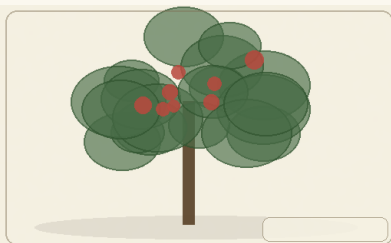
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6

GUAVA

LAND FOOD



Stylized form diagram — not an identification photograph

Psidium guajava

IDENTIFY: Opposite oval leaves with strong parallel side veins; smooth peeling bark; white brush flowers; aromatic fruit.

HABITAT / SEASON: Tropical and subtropical disturbed ground, forest edge and river terraces. Season: Fruit varies by climate; wood year-round.

SURVIVAL USE: Ripe fruit is documented food; hard close-grained wood makes pegs, handles and friction-fire spindles.

CAUTION: Fruit can host insects and feral plants may be sprayed. Leaves are not a substitute for medical care.

LOOK-ALIKES: Other Myrtaceae share opposite leaves; fruit odor and flower structure help confirm.

TASKS: food fruit, handles, bow drill spindle

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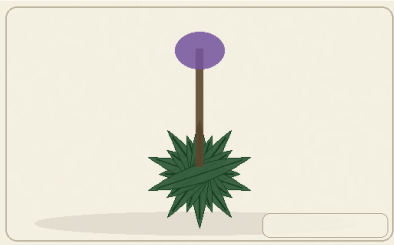
7

LAND-BASED EDIBLE PLANTS

Documented foods on dry or seasonally dry ground. Preparation and contamination still matter.

COMMON PURSLANE

LAND FOOD



Stylized form diagram — not an identification photograph

Portulaca oleracea

IDENTIFY: Low reddish succulent stems; smooth fleshy leaves; tiny yellow flowers; clear sap.

HABITAT / SEASON: Disturbed warm ground, gardens, river deposits and camp edges worldwide. Season: Warm growing season.

SURVIVAL USE: Young leaves and stems are documented food and water-rich greens.

CAUTION: High oxalate content; avoid large amounts with kidney disease and avoid contaminated ground.

LOOK-ALIKES: Spurge often exude milky sap and are unsafe.

TASKS: food green

Verified images: POWO

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8

SALTBUSHES

LAND FOOD



Stylized form diagram — not an identification photograph

Atriplex spp.

IDENTIFY: Gray or mealy alternate leaves; inconspicuous flowers; often salt-tolerant and sprawling.

HABITAT / SEASON: Deserts, salt flats, coasts and disturbed dry ground. Season: Leaves most of year.

SURVIVAL USE: Leaves of selected species are documented cooked greens; stems can fuel small fires and brush shelters.

CAUTION: High salt and oxalate content makes this a small-portion food, especially when dehydrated or kidney-impaired.

LOOK-ALIKES: Many gray desert shrubs resemble saltbush; fruiting bracts help confirm.

TASKS: food green, fuel, brush

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9

LAND-BASED EDIBLE PLANTS

Documented foods on dry or seasonally dry ground. Preparation and contamination still matter.

JERUSALEM ARTICHOKE

LAND FOOD



Stylized form diagram — not an identification photograph

Helianthus tuberosus

IDENTIFY: Tall sunflower relative with rough opposite lower leaves, yellow heads and knobby underground tubers.

HABITAT / SEASON: Moist prairie, riverbanks and disturbed temperate ground. Season: Tubers fall through spring.

SURVIVAL USE: Cooked tubers are documented food; stalks dry into light kindling.
 CAUTION: Tubers are rich in inulin and can cause severe gas. Confirm before flowering or dig only from known colonies.
 LOOK-ALIKES: Other sunflowers lack the same tuber clusters.
 TASKS: food tuber, kindling

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10

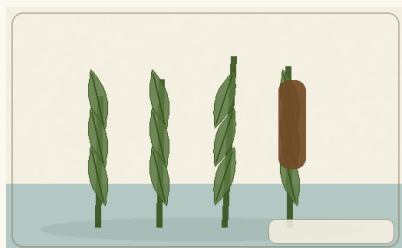
FOOD HARVEST SCREEN

Confirm species, plant part and maturity. Check whether cooking, leaching, peeling, fermenting or repeated water changes are required. Reject mold, animal contamination, roadside plants, chemically treated ground and any food whose safe preparation cannot be completed with current water and fuel.

WATER AND WETLAND EDIBLE PLANTS

Freshwater, marsh, tidal and marine foods. Correct ID does not make dirty water safe.

CATTAILS

AQUATIC FOOD

Stylized form diagram — not an identification photograph

Typha spp.

IDENTIFY: Tall flat strap leaves; dense brown cylindrical female flower spike below a narrower male section.

HABITAT / SEASON: Marshes, pond edges, slow channels and wet ditches. Season: Shoots spring; pollen early summer; rhizomes year-round where lawful.

SURVIVAL USE: Documented food parts include young inner shoots, pollen and processed rhizome starch. Leaves make mats, baskets and thatch; seed down can bulk tinder.

CAUTION: Water can concentrate sewage, metals and parasites. Raw rhizome requires correct processing; avoid contaminated marshes.

LOOK-ALIKES: Yellow flag iris has sword leaves and showy flowers but no brown cattail head.

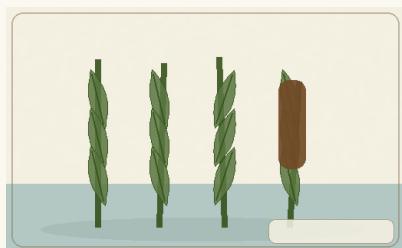
TASKS: food shoot, food starch, basketry, thatch, tinder

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11

TOTORA RUSH

AQUATIC FOOD

Stylized form diagram — not an identification photograph

Schoenoplectus californicus subsp. tatora

IDENTIFY: Tall round green stems with small brown flower clusters near the tip; forms dense lake and marsh beds.

HABITAT / SEASON: Andean and South American lakes, marshes and slow water. Season: Young shoots and rhizomes seasonal; stems year-round.

SURVIVAL USE: Rhizomes and tender shoots have documented food use; stems make mats, boats, baskets and thatch.

CAUTION: Water quality and harvest rights matter. Sedges are difficult to identify when not flowering.

LOOK-ALIKES: Cattails have broad flat leaves and brown cylinders.

TASKS: food shoot, food starch, basketry, thatch, float

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12

WATER AND WETLAND EDIBLE PLANTS

Freshwater, marsh, tidal and marine foods. Correct ID does not make dirty water safe.

TROPICAL ARROWHEADS
AQUATIC FOOD

Stylized form diagram — not an identification photograph

Sagittaria guayanensis and related spp.

IDENTIFY: Arrow to oval leaves rising from shallow water; three-petaled white flowers; some produce tubers.

HABITAT / SEASON: Floodplains, marshes and slow tropical water. Season: Tubers seasonal.

SURVIVAL USE: Tubers of confirmed edible species are documented food after cooking.

CAUTION: Species vary in tuber production; wetlands may contain parasites and toxic aroids.

LOOK-ALIKES: Arrow arum and other aroids have spadix-and-spathe flowers.

TASKS: food tuber

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13

AQUATIC HARVEST SCREEN

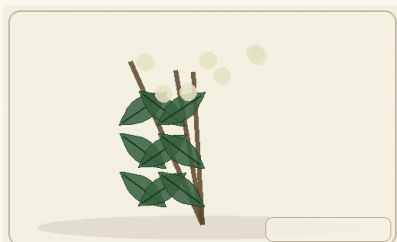
Check five separate questions: Is the species correct? Is the plant part edible? Is the water free of sewage, mining or farm runoff? Are parasites or harmful algal blooms plausible? Is entry and exit from the water safe? A “yes” to the plant and a “no” to the water still means do not eat.

MEDICINAL AND TRADITIONAL-USE PLANTS

Traditional and historical uses only — no dosing, diagnosis or treatment claims.

YARROW

TRADITIONAL-USE



Achillea millefolium

IDENTIFY: Aromatic finely divided leaves; flat clusters of small white to pink flower heads.

Stylized form diagram — not an identification photograph

HABITAT / SEASON: Dry openings, trails, grassland, shore gravel and disturbed soil. Season: Summer through fall.

SURVIVAL USE: Documented traditional external uses include washes and aromatic preparations; dry flower heads make light tinder.

CAUTION: Possible allergy, pregnancy and anticoagulant concerns. Not a substitute for wound cleaning or medical care.

LOOK-ALIKES: Poison hemlock is much taller with hollow purple-spotted stems and true umbels.

TASKS: medicine, tinder

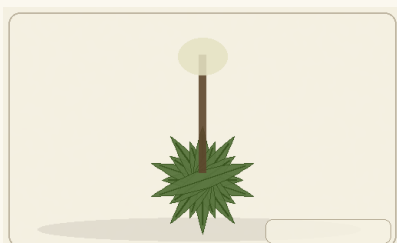
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14

BROADLEAF AND RIBWORT PLANTAINS

TRADITIONAL-USE



Plantago major / *P. lanceolata*

IDENTIFY: Basal rosette with strong parallel ribs; leafless spikes of tiny flowers and seeds.

Stylized form diagram — not an identification photograph

HABITAT / SEASON: Trails, camps, meadows and disturbed soil. Season: Spring through fall.

SURVIVAL USE: Young leaves and seeds are documented food; clean leaves have traditional external use on minor irritation.

CAUTION: Do not put dirty leaves on open wounds. Seeds swell with water and can obstruct if taken dry in quantity.

LOOK-ALIKES: Docks have netted veins; plantain ribs run from the base.

TASKS: food green, medicine

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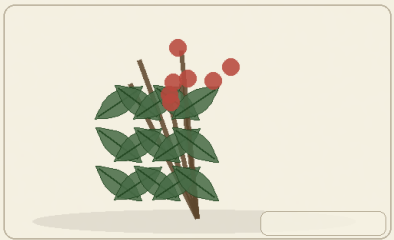
15

MEDICINAL AND TRADITIONAL-USE PLANTS

Traditional and historical uses only — no dosing, diagnosis or treatment claims.

MUÑA

TRADITIONAL-USE



Minthostachys mollis

IDENTIFY: Mint-family shrub with opposite aromatic leaves and small white-lilac flowers.

HABITAT / SEASON: Andean dry slopes, field edges and highland scrub. Season: Leaves growing season.

SURVIVAL USE: Documented Andean seasoning and traditional digestive use; dry stems aid tinder.
CAUTION: Essential oils and concentrated teas are not safe field dosing, especially in pregnancy.
LOOK-ALIKES: Other mint-family shrubs require flower and scent confirmation.
TASKS: seasoning, medicine, tinder

Verified images: POWO

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16

MEDICINAL RESTRAINT

A plant can be culturally important and pharmacologically active yet still be the wrong survival choice. Unknown concentration, dehydration, pregnancy, allergies, chronic illness and medicine interactions can turn a traditional remedy into a second emergency.

POISONOUS PLANTS AND DANGEROUS LOOK-ALIKES

High-consequence species to learn before gathering starts.

DATURAS / THORN APPLES

POISON — AVOID



Stylized form diagram — not an identification photograph

Datura spp.

IDENTIFY: Large foul-smelling leaves; upright trumpet flowers; spiny egg-shaped capsules.

HABITAT / SEASON: Disturbed warm ground, dry riverbeds and fields worldwide. Season: Summer-fall.

SURVIVAL USE: No use.

CAUTION: All parts contain dangerous tropane alkaloids causing delirium, overheating, seizures and death.

LOOK-ALIKES: Brugmansia has hanging trumpets on woody shrubs and is also toxic.

TASKS: poison

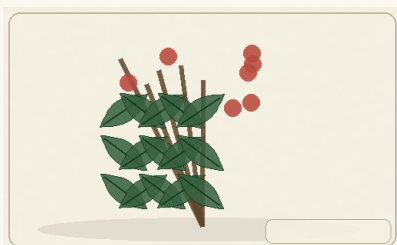
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17

CASTOR BEAN

POISON — AVOID



Stylized form diagram — not an identification photograph

Ricinus communis

IDENTIFY: Large star-shaped palmately lobed leaves; spiny capsules; glossy mottled seeds.

HABITAT / SEASON: Warm disturbed ground, riverbanks and tropical/subtropical waste areas. Season: Growing season; seeds seasonal.

SURVIVAL USE: No survival food or medicine use. Oil extraction is industrial, not a field process.

CAUTION: Chewed seeds can release ricin and cause severe or fatal poisoning.

LOOK-ALIKES: Jatropha has similar lobed leaves but different fruit; it is also toxic.

TASKS: poison

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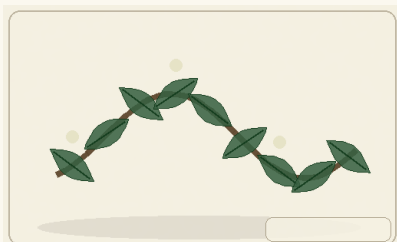
18

POISONOUS PLANTS AND DANGEROUS LOOK-ALIKES

High-consequence species to learn before gathering starts.

TOXIC STRYCHNOS VINES AND TREES

POISON — AVOID



Strychnos spp.

IDENTIFY: Opposite leaves with strong curved veins; tendrils or woody stems; round fruits vary by species.

Stylized form diagram — not an identification photograph

HABITAT / SEASON: Tropical forest and savanna. Season: Year-round.

SURVIVAL USE: No food use unless a local expert identifies a known edible species.

CAUTION: The genus includes plants with strychnine-type toxins. Fruit appearance is not enough to judge safety.

LOOK-ALIKES: Edible monkey oranges are region-specific *Strychnos* and still require expert confirmation.

TASKS: poison

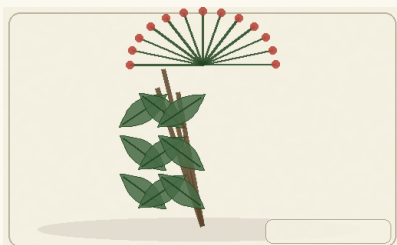
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19

WATER HEMLOCKS

POISON — AVOID



Cicuta spp.

IDENTIFY: Wetland perennial with divided leaves, white umbrella flower clusters and thick chambered rootstocks.

Stylized form diagram — not an identification photograph

HABITAT / SEASON: Marshes, wet meadows, stream edges and ditches across the northern hemisphere. Season: Spring through fall.

SURVIVAL USE: No survival use. Make wetland root gathering a prohibited activity unless a qualified botanist is present.

CAUTION: Extremely poisonous; small amounts, especially roots, can cause violent seizures and death.

LOOK-ALIKES: Angelica, cow parsnip and other Apiaceae can look similar. Never taste to decide.

TASKS: poison

Verified images: POWO

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20

SURVIVAL TASK MATRIX

Choose the least destructive plant that meets the job. A material that works poorly but is abundant may beat the perfect rare species.

TASK	BEST REGIONAL CANDIDATES IN THIS GUIDE	FIELD DECISION
Bow / spring wood	Arid acacias, Wild raisins / Grewia, Mesquites	Use dead, shed or pruned material first.
Arrow or dart shaft	Wild raisins / Grewia	Use dead, shed or pruned material first.
Bow-drill hearth	No reliable candidate among the priority profiles.	Use a different technology or carried tool; do not force unsuitable plant material.
Bow-drill spindle	Yuccas, Guava	Use dead, shed or pruned material first.
Tinder	Yuccas, Cattails, Yarrow, Muña	Use dead, shed or pruned material first.
Fuel / coals	Arid acacias, Mesquites, Prickly pears, Saltbushes	Use dead, shed or pruned material first.
Cordage / fiber	Wild raisins / Grewia, Yuccas, Buriti / moriche palm	Use dead, shed or pruned material first.
Basket / mat	Buriti / moriche palm, Cattails, Totora rush	Use dead, shed or pruned material first.
Container / wrap	No reliable candidate among the priority profiles.	Use a different technology or carried tool; do not force unsuitable plant material.
Fruit food	Wild raisins / Grewia, Buriti / moriche palm, Prickly pears, Guava	Verify part, maturity and preparation.
Green food	Common purslane, Saltbushes, Broadleaf and ribwort plantains	Verify part, maturity and preparation.
Seed / nut	No reliable candidate among the priority profiles.	Use a different technology or carried tool; do not force unsuitable plant material.
Root / starch	Cattails, Totora rush	Verify part, maturity and preparation.
Traditional-use	Yarrow, Broadleaf and ribwort plantains, Muña	Documented use only; no field dosing.

SEASONAL OPERATING RHYTHM

PHASE	PRIMARY OPPORTUNITY	PRIMARY RISK
Early growth	Shoots, greens, flowers, sap and easy bark identification.	Toxic shoots and bulbs are hardest to separate before flowering.
Peak growth	Maximum leaf and flower information; fiber plants mature.	Heat, insects, sap and water contamination.
Fruit / seed	Highest food density; nuts, berries, pods, grains and tubers.	Mold, wildlife encounters and unripe or toxic fruit.
Dormant / dry	Wood, bark, evergreen leaves, persistent fruit and roots.	Fewer diagnostic traits; overharvest of stored underground parts.

SOURCES, IMAGE VERIFICATION AND EMERGENCY

Every profile links to current taxonomic and photograph searches. Treat community photographs as evidence to compare, not as a final authority.

1. 2023 USDA Plant Hardiness Zone Map

USDA Agricultural Research Service — hardiness-zone reference

<https://planthardiness.ars.usda.gov/>

2. Plants of the World Online

Royal Botanic Gardens, Kew — taxonomy, distribution and images

<https://powo.science.kew.org/>

3. World Flora Online

World Flora Online Consortium — global plant taxonomy

<https://www.worldfloraonline.org/>

4. Global Biodiversity Information Facility

GBIF Secretariat — occurrence records and licensed media

<https://www.gbif.org/>

5. World Checklist of Useful Plant Species

Royal Botanic Gardens, Kew — documented plant uses

<https://kew.iro.bl.uk/concern/datasets/7243d727-e28d-419d-a8f7-9ebef5b9e03e>

6. Poison Control

National Capital Poison Center — poisoning first-response guidance

<https://www.poison.org/>

7. WHO Monographs on Selected Medicinal Plants

World Health Organization — medicinal-plant safety and monographs

<https://www.who.int/publications/i/item/9241545178>

8. Tropicos

Missouri Botanical Garden — American and global botanical records

<https://tropicos.org/>

9. Flora e Funga do Brasil

Jardim Botânico do Rio de Janeiro — Brazilian scientific flora

<https://floradobrasil.jbrj.gov.br/>

SUSPECTED POISONING

Stop exposure. Remove material from the mouth and rinse. Do not induce vomiting unless directed. Save a sample or clear photographs. Contact local emergency services or a poison center. Monitor airway, breathing and consciousness.

PUBLICATION LIMITS

Regional lists are representative, not exhaustive. Species ranges, names, laws and preparation practices change. Local floras, land managers, Indigenous knowledge holders, poison centers and clinicians take precedence.