

KALAHARI-NAMIB SEMI-DESERT & THORNVELD PLANT SURVIVAL GUIDE

Africa • USDA-EQUIVALENT ZONES 9-13 • KÖPPEN BWh / BWk / 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: Africa USDA-equivalent hardiness: 9-13 Köppen: BWh / BWk / BSh

Regional habitat: Dune, gravel plain, dry river, thornveld and salt pan

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

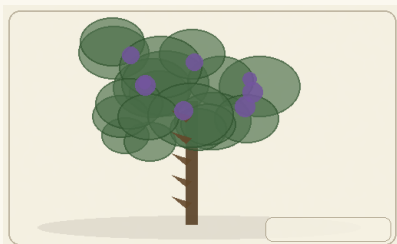
1. Deadfall and shed bark.
2. Abundant annual greens and fruit.
3. Pruned shoots and leaves.
4. Small stems from common thickets.
5. Roots, bark and whole plants only with permission and no safer substitute.

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

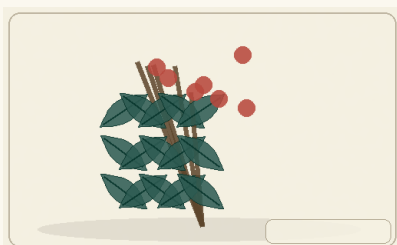
Verified images: POWO

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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

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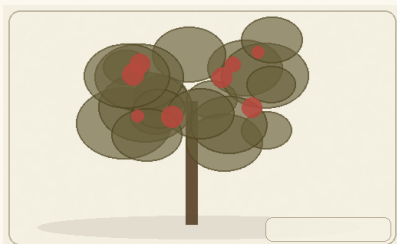
2

USEFUL PLANTS FOR TOOLS, FIRE AND SHELTER

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

AFRICAN BAOBAB

USEFUL MATERIAL



Stylized form diagram — not an identification photograph

Adansonia digitata

IDENTIFY: Massive bottle-shaped trunk; palmate leaves; large hanging velvety fruits with dry powdery pulp.

HABITAT / SEASON: African savanna, dry woodland and village parkland. Season: Fruit dry season; leaves wet season; fiber year-round.

SURVIVAL USE: Fruit pulp and young leaves are documented food; bark fiber has cordage use; hollow or fallen wood can support containers and tinder.

CAUTION: Do not strip living bark without local authority. Seeds and leaves require normal food preparation.

LOOK-ALIKES: Other baobab species occur in Madagascar and Australia.

TASKS: food fruit, food green, cordage, container

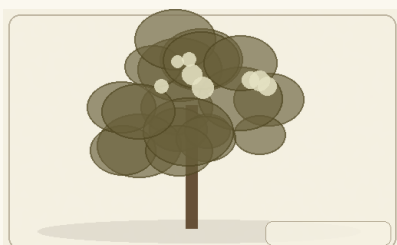
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3

TAMARISKS

USEFUL MATERIAL



Stylized form diagram — not an identification photograph

Tamarix spp.

IDENTIFY: Fine scale-like leaves on feathery twigs; pink flower sprays; salt often crystallizes on foliage.

HABITAT / SEASON: Desert rivers, salt flats, oases and coasts. Season: Wood year-round; flowers seasonal.

SURVIVAL USE: Flexible twigs for wattle, brush shelters and small fuel; dry stems tolerate saline sites.

CAUTION: Not a food. Invasive in many regions; salty smoke and treated control sites are concerns.

LOOK-ALIKES: Casuarina has jointed needle-like branchlets and cone-like fruits.

TASKS: wattle, fuel, brush

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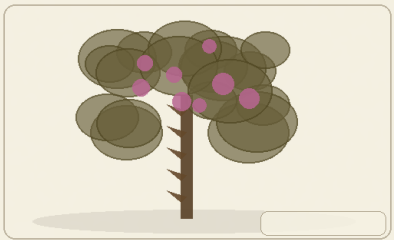
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USEFUL PLANTS FOR TOOLS, FIRE AND SHELTER

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

JUJUBES

USEFUL MATERIAL



Ziziphus spp.

IDENTIFY: Zigzag twigs with paired straight and hooked thorns; three-veined leaves; small drupes.

HABITAT / SEASON: Dry Africa, Asia and Mediterranean-type scrub. Season: Fruit summer-fall; wood year-round.

SURVIVAL USE: Ripe fruits of confirmed species are documented food; hard wood makes tool handles, pegs and small bows.
 CAUTION: Unripe fruit can be astringent; thorn injuries are common. Species vary.
 LOOK-ALIKES: Christ's-thorn and buffalo-thorn relatives require local confirmation.
 TASKS: food fruit, bow wood, handles, pegs

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MATERIAL SELECTION SCREEN

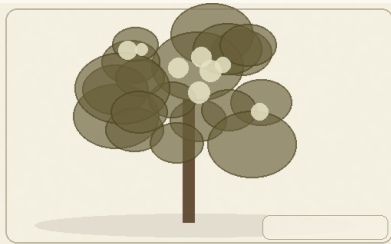
Before cutting, test straightness, grain, dryness, hidden rot, sap or smoke toxicity, and whether the species is protected. Match the material to the load: springy bow wood, straight shaft wood, soft dry hearth board, harder spindle, fibrous cordage, or resin-free cooking fuel.

LAND-BASED EDIBLE PLANTS

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

MARULA

LAND FOOD



Stylized form diagram — not an identification photograph

Sclerocarya birrea

IDENTIFY: Compound leaves clustered near twig tips; gray mottled bark; plum-sized yellow fruit with hard stone.

HABITAT / SEASON: African savanna and dry woodland. Season: Fruit wet-season to late summer depending region.

SURVIVAL USE: Ripe fruit and seed kernels are documented food; wood carves easily for bowls and tools.

CAUTION: Fermenting fallen fruit attracts animals and insects. Kernel extraction needs tools and nut allergy applies.

LOOK-ALIKES: *Searsia* species have smaller clustered fruits and often three leaflets.

TASKS: food fruit, food nut, carving

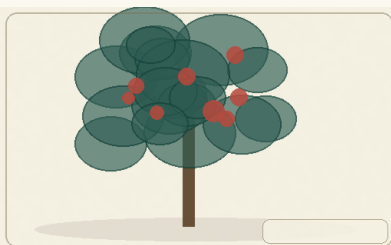
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MONKEY ORANGES

LAND FOOD



Stylized form diagram — not an identification photograph

Strychnos cocculoides / *S. spinosa*

IDENTIFY: Opposite leaves with strong curved veins; hard round yellow-orange fruit with many seeds in pulp.

HABITAT / SEASON: African savanna and dry woodland. Season: Fruit dry to early wet season.

SURVIVAL USE: Fully ripe fruit of confirmed edible species is documented food; hard wood can make pegs and tools.

CAUTION: The genus includes highly toxic species. Never generalize from fruit shape or name.

LOOK-ALIKES: Toxic *Strychnos* species can look similar without expert regional knowledge.

TASKS: food fruit, pegs

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LAND-BASED EDIBLE PLANTS

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

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

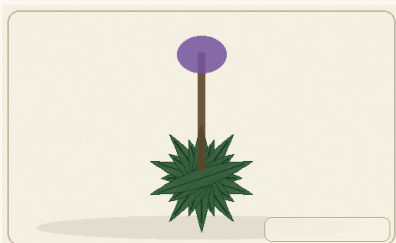
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COMMON PURSLANE

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

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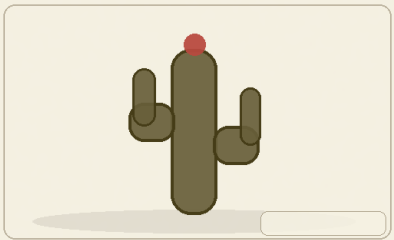
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LAND-BASED EDIBLE PLANTS

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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FOOD HARVEST SCREEN

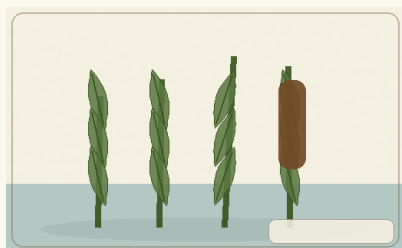
Confirm species, plant part and maturity. Check whether cooking, leaching, peeling, fermenting or repeated water changes are required. Reject mold, animal contamination, roadside plants, chemically treated ground and any food whose safe preparation cannot be completed with current water and fuel.

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

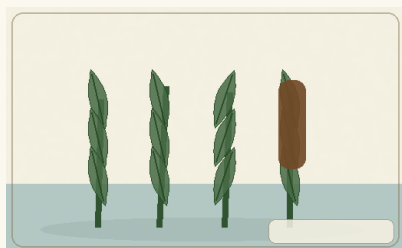
Verified images: POWO

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COMMON REED

AQUATIC FOOD



Stylized form diagram — not an identification photograph

Phragmites australis

IDENTIFY: Tall jointed canes; broad leaves with rough margins; large feathery purple-tan panicles.

HABITAT / SEASON: Marshes, riverbanks, lake edges and brackish wetlands worldwide. Season: Canes year-round; young shoots spring.

SURVIVAL USE: Dry canes make arrow shafts, fish spears, mats, thatch, containers and friction-fire spindles; young shoots have limited documented food use.

CAUTION: Invasive populations may be chemically treated. Cut cane edges are sharp; food use is excluded where water quality is uncertain.

LOOK-ALIKES: Giant reed is stouter; reed canary grass has a smaller seed head.

TASKS: arrow shaft, bow drill spindle, thatch, basketry, container

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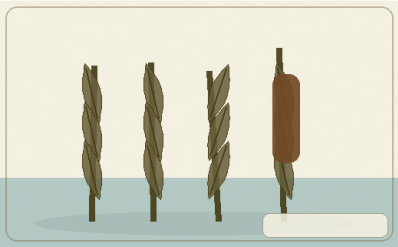
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WATER AND WETLAND EDIBLE PLANTS

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

BULRUSHES

AQUATIC FOOD



Schoenoplectus spp.

IDENTIFY: Round or triangular mostly leafless stems; small brown flower clusters near stem tips.

HABITAT / SEASON: Freshwater and brackish marshes, pond edges and slow rivers. Season: Young shoots spring; rhizomes and stems longer.

SURVIVAL USE: Rhizomes and young shoots have documented food use after correct species identification; stems make mats, cordage and basket frames.

CAUTION: Wetland contamination is a major risk. Several sedges are difficult to separate.

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

TASKS: food shoot, food starch, basketry, cordage

Verified images: POWO

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AQUATIC HARVEST SCREEN

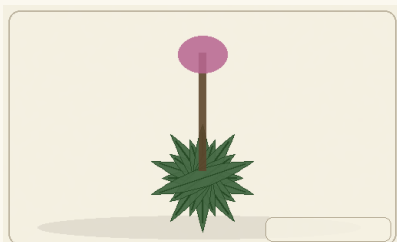
Check five separate questions: Is the species correct? Is the plant part edible? Is the water free of sewage, mining or farm runoff? Are parasites or harmful algal blooms plausible? Is entry and exit from the water safe? A “yes” to the plant and a “no” to the water still means do not eat.

MEDICINAL AND TRADITIONAL-USE PLANTS

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

AFRICAN ALOES

TRADITIONAL-USE



Stylized form diagram — not an identification photograph

Aloe spp.

IDENTIFY: Fleshy rosette leaves with toothed margins and spikes of tubular red, orange or yellow flowers.

HABITAT / SEASON: African drylands, rocky slopes and fynbos. Season: Leaves year-round; flowers seasonal.

SURVIVAL USE: Clear inner gel of a few correctly identified species has documented external soothing use; dry stalks are tinder.

CAUTION: Yellow latex under the rind is a strong laxative and can be dangerous. Species vary; do not eat aloe in the field.

LOOK-ALIKES: Agaves are New World plants with fibrous leaves and different flowers.

TASKS: medicine, tinder

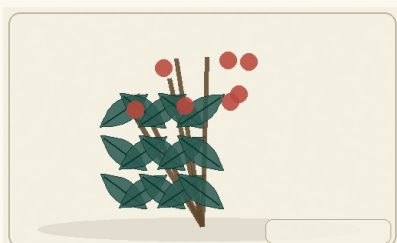
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AFRICAN WORMWOOD

TRADITIONAL-USE



Stylized form diagram — not an identification photograph

Artemisia afra

IDENTIFY: Gray-green aromatic finely divided leaves; small inconspicuous flower heads; woody base.

HABITAT / SEASON: African highlands, grassland and disturbed mountain slopes. Season: Growing season.

SURVIVAL USE: Widely documented traditional aromatic and respiratory use; dry stems support tinder.

CAUTION: No survival dosing. Concentrated oils and teas can be toxic, especially in pregnancy or seizure disorders.

LOOK-ALIKES: Other Artemisia species and unrelated gray shrubs resemble it.

TASKS: medicine, tinder

Verified images: POWO

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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.

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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MEDICINAL RESTRAINT

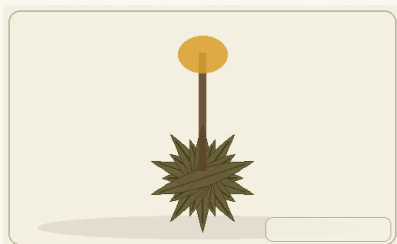
A plant can be culturally important and pharmacologically active yet still be the wrong survival choice. Unknown concentration, dehydration, pregnancy, allergies, chronic illness and medicine interactions can turn a traditional remedy into a second emergency.

POISONOUS PLANTS AND DANGEROUS LOOK-ALIKES

High-consequence species to learn before gathering starts.

TREE EUPHORBIAS

POISON — AVOID



Stylized form diagram — not an identification photograph

Euphorbia spp.

IDENTIFY: Candelabra or shrub form; milky latex; paired spines in many species; tiny flowers in specialized cups.

HABITAT / SEASON: African drylands, tropical scrub and disturbed ground. Season: Year-round.

SURVIVAL USE: No food use; dry dead wood is not recommended for cooking fires.

CAUTION: Latex can cause severe burns, blindness and vomiting; smoke is irritating.

LOOK-ALIKES: Cacti lack milky latex and are native to the Americas.

TASKS: poison

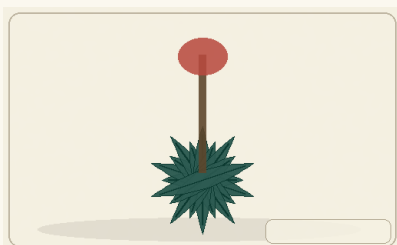
Verified images: POWO

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DESERT ROSE

POISON — AVOID



Stylized form diagram — not an identification photograph

Adenium obesum

IDENTIFY: Swollen succulent trunk, leathery leaves near branch tips and large pink-red trumpet flowers; milky sap.

HABITAT / SEASON: East African and Arabian dry bushland and rocky slopes. Season: Year-round stems; flowers seasonal.

SURVIVAL USE: No food use.

CAUTION: Milky sap contains cardiac glycosides and has been used as arrow poison. Avoid skin, eye and wound contact.

LOOK-ALIKES: Plumeria has milky sap and flowers but lacks the swollen caudex.

TASKS: poison

Verified images: POWO

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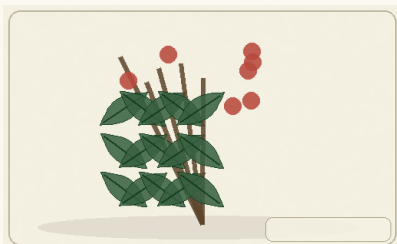
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POISONOUS PLANTS AND DANGEROUS LOOK-ALIKES

High-consequence species to learn before gathering starts.

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

Verified images: POWO

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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

Verified images: POWO

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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, Jujubes	Use dead, shed or pruned material first.
Arrow or dart shaft	Wild raisins / Grewia, Common reed	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	Common reed	Use dead, shed or pruned material first.
Tinder	Cattails, African aloes, African wormwood, Yarrow	Use dead, shed or pruned material first.
Fuel / coals	Arid acacias, Tamarisks, Saltbushes, Prickly pears	Use dead, shed or pruned material first.
Cordage / fiber	Wild raisins / Grewia, African baobab, Bulrushes	Use dead, shed or pruned material first.
Basket / mat	Cattails, Common reed, Bulrushes	Use dead, shed or pruned material first.
Container / wrap	African baobab, Common reed	Use dead, shed or pruned material first.
Fruit food	Wild raisins / Grewia, African baobab, Jujubes, Marula	Verify part, maturity and preparation.
Green food	African baobab, Saltbushes, Common purslane	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, Bulrushes	Verify part, maturity and preparation.
Traditional-use	African aloes, African wormwood, Yarrow	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. African Plant Database

Conservatoire et Jardin botaniques de Geneve and SANBI — African taxonomy and distribution

<https://africanplantdatabase.ch/>

9. PlantZAfrica

South African National Biodiversity Institute — African species profiles and uses

<https://pza.sanbi.org/>

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.