

SOUTHEAST ASIAN LOWLAND RAINFOREST & MANGROVES PLANT SURVIVAL GUIDE

Asia • USDA-EQUIVALENT ZONES 11-13 • KÖPPEN Af / Am

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: Asia USDA-equivalent hardiness: 11-13 Köppen: Af / Am
Regional habitat: Dipterocarp forest, peat swamp, mangrove and tidal creek
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

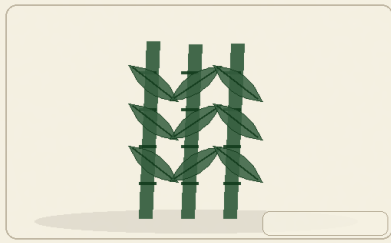
1. Deadfall and shed bark.
2. Abundant annual greens and fruit.
3. Pruned shoots and leaves.
4. Small stems from common thickets.
5. Roots, bark and whole plants only with permission and no safer substitute.

USEFUL PLANTS FOR TOOLS, FIRE AND SHELTER

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

ASIAN BAMBOOS

USEFUL MATERIAL



Stylized form diagram — not an identification photograph

Bambusa / Dendrocalamus / Phyllostachys spp.

IDENTIFY: Hollow or thick-walled segmented culms; branches at nodes; narrow grass leaves.

HABITAT / SEASON: Asian tropical, subtropical and temperate forest, river valleys and disturbed ground. Season: Culms year-round; shoots rainy or spring season.

SURVIVAL USE: Shelter, containers, bows, arrow shafts, spears, traps, rafts, cordage strips and friction-fire sets; selected young shoots are food after boiling.

CAUTION: Shoot cyanide varies; never eat raw unknown bamboo shoots. Green culms can split in fire.

LOOK-ALIKES: Giant reeds lack woody branched culms.

TASKS: construction, bow wood, arrow shaft, container, bow drill, food shoot

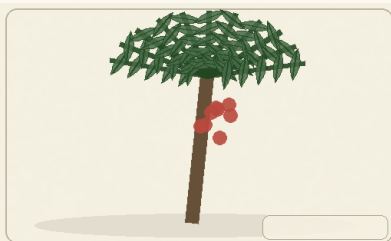
Verified images: POWO

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1

RATTAN PALMS

USEFUL MATERIAL



Stylized form diagram — not an identification photograph

Calamoideae climbing palms

IDENTIFY: Long climbing palm stems with pinnate leaves and backward-pointing hooks or flagella.

HABITAT / SEASON: Southeast Asian and African humid forest. Season: Stems year-round; fruit seasonal.

SURVIVAL USE: Exceptionally strong flexible cane for lashings, baskets, traps, pack frames and bow backing.

CAUTION: Hooks tear skin and eyes. Some fruits are irritant or very sour; species identification is difficult.

LOOK-ALIKES: Lianas lack palm leaf bases and specialized climbing whips.

TASKS: cordage, basketry, trap, pack frame

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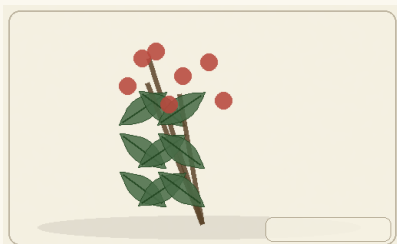
2

USEFUL PLANTS FOR TOOLS, FIRE AND SHELTER

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

RED MANGROVES

USEFUL MATERIAL



Stylized form diagram — not an identification photograph

Rhizophora spp.

IDENTIFY: Opposite leathery leaves, arching stilt roots and long pencil-like propagules.

HABITAT / SEASON: Tropical tidal creeks, lagoons and estuaries. Season: Wood and leaves year-round; propagules seasonal.

SURVIVAL USE: Dense durable wood, poles, fish-trap stakes, tannin and fuel; roots provide nursery habitat for fish.

CAUTION: Smoke is harsh, cutting may be illegal, and estuary mud/tides are dangerous. Not a routine food plant.

LOOK-ALIKES: Black mangroves have upright pencil pneumatophores and salt-excreting leaves.

TASKS: poles, stakes, fuel, tannin

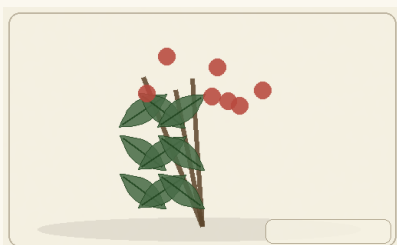
Verified images: POWO

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3

BLACK MANGROVES

USEFUL MATERIAL



Stylized form diagram — not an identification photograph

Avicennia spp.

IDENTIFY: Opposite gray-green leaves, salt crystals often visible; many upright pencil-like pneumatophores around the trunk.

HABITAT / SEASON: Tropical and subtropical intertidal flats. Season: Year-round.

SURVIVAL USE: Wood for fuel and small poles; leaves and bark have documented regional uses; habitats support shellfish and fish.

CAUTION: Seeds of some species require extensive traditional leaching and are not recommended without local expertise. Tides and mud are hazardous.

LOOK-ALIKES: Red mangroves have arching stilt roots and long propagules.

TASKS: fuel, poles, habitat

Verified images: POWO

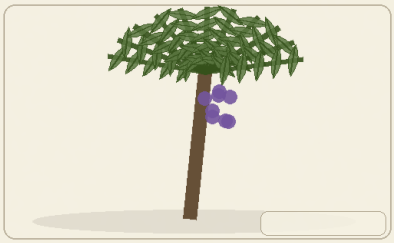
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4

USEFUL PLANTS FOR TOOLS, FIRE AND SHELTER

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

NIPA PALM
USEFUL MATERIAL



Nypa fruticans

IDENTIFY: Huge pinnate leaves arise directly from mud; round brown fruit head; trunk remains underground.

HABITAT / SEASON: Southeast Asian and Pacific mangrove estuaries. Season: Sap and fruit seasonal; leaves year-round.

SURVIVAL USE: Young seed endosperm and processed sap are documented foods; leaves provide excellent thatch and basket material.

CAUTION: Tidal mud, crocodiles and contaminated estuaries are major hazards. Fermenting sap requires hygiene and ownership rights.

LOOK-ALIKES: No other mangrove palm has the same ground-level leaf crown and round fruit head.

TASKS: food seed, food sap, thatch, basketry

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5

MATERIAL SELECTION SCREEN

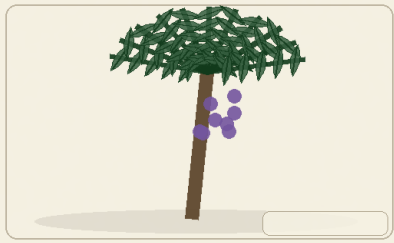
Before cutting, test straightness, grain, dryness, hidden rot, sap or smoke toxicity, and whether the species is protected. Match the material to the load: springy bow wood, straight shaft wood, soft dry hearth board, harder spindle, fibrous cordage, or resin-free cooking fuel.

LAND-BASED EDIBLE PLANTS

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

COCONUT PALM

LAND FOOD



Stylized form diagram — not an identification photograph

Cocos nucifera

IDENTIFY: Tall often leaning palm; pinnate leaves; large fibrous coconuts with three eyes.

HABITAT / SEASON: Tropical coasts and islands, usually near human settlement. Season: Fruit year-round in warm climates.

SURVIVAL USE: Water and meat from intact mature fruit are food; husk coir makes cordage and tinder; shell makes bowls; fronds provide thatch and basketry.

CAUTION: Falling coconuts kill. Sour, cracked or contaminated nuts are unsafe. Trees often belong to someone.

LOOK-ALIKES: Other palms have smaller fruit and no thick coir husk.

TASKS: food water, food fruit, cordage, tinder, container, thatch

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6

BANANAS AND PLANTAINS

LAND FOOD



Stylized form diagram — not an identification photograph

Musa spp.

IDENTIFY: Large paddle leaves from layered leaf bases forming a pseudostem; hanging flower and fruit cluster.

HABITAT / SEASON: Tropical forest gaps, river valleys and old cultivation. Season: Fruit and shoots year-round where warm.

SURVIVAL USE: Ripe fruit and cooked green fruit of known cultivars are food; leaves wrap food and shed rain; pseudostem fibers make cordage and tinder.

CAUTION: Wild bananas may contain many hard seeds. Sap stains and plantations are owned.

LOOK-ALIKES: Heliconia has smaller fruits and different flower bracts.

TASKS: food fruit, leaf wrap, cordage, tinder

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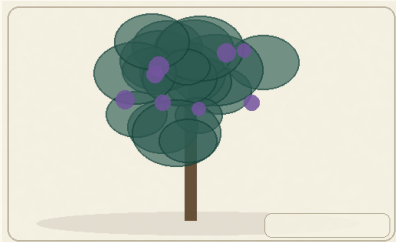
7

LAND-BASED EDIBLE PLANTS

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

BREADFRUIT

LAND FOOD



Stylized form diagram — not an identification photograph

Artocarpus altilis

IDENTIFY: Large deeply lobed glossy leaves; milky sap; round green bumpy multiple fruits.

HABITAT / SEASON: Pacific and Southeast Asian humid tropics, usually cultivated or naturalized. Season: Fruit seasonal; wood year-round.

SURVIVAL USE: Mature fruit is a major documented starch after cooking; latex seals containers; light wood makes canoe parts and boards.

CAUTION: Raw fruit and latex irritate; ownership and cultivar maturity matter.

LOOK-ALIKES: Jackfruit has larger spiny fruit directly on trunk and less deeply lobed leaves.

TASKS: food starch, sealant, construction

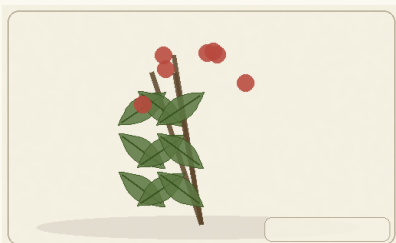
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8

TARO

LAND FOOD



Stylized form diagram — not an identification photograph

Colocasia esculenta

IDENTIFY: Large heart-shaped peltate leaves with petiole attached inside the blade; starchy corm; spadix and spathe flowers.

HABITAT / SEASON: Tropical wet ground, stream margins and old cultivation. Season: Corms and leaves year-round where warm.

SURVIVAL USE: Corms and selected leaves are major documented foods after thorough cooking; leaves can wrap food and shed rain.

CAUTION: Raw tissue contains calcium oxalate crystals and can burn mouth and throat. Wild aroids are not interchangeable.

LOOK-ALIKES: Xanthosoma petiole joins at the basal notch rather than inside the blade.

TASKS: food starch, food green, leaf wrap

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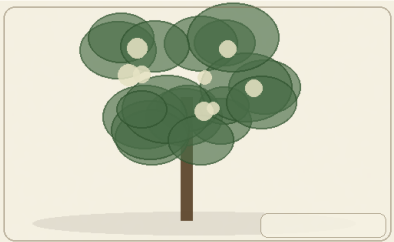
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9

LAND-BASED EDIBLE PLANTS

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

PANDANUS / SCREW PINE
LAND FOOD



Stylized form diagram — not an identification photograph

Pandanus spp.

IDENTIFY: Spiral clusters of long saw-edged leaves; prop roots; pineapple-like segmented fruits.

HABITAT / SEASON: Pacific and Southeast Asian coasts, swamps and volcanic islands. Season: Fruit seasonal; leaves year-round.

SURVIVAL USE: Fruit keys of selected species are documented food after local processing; leaves make mats, sails, baskets and cordage.

CAUTION: Species and fruit processing vary; leaf edges cut skin. Some fruit is barely edible or requires cooking.

LOOK-ALIKES: Pineapples are ground rosettes and lack prop roots.

TASKS: food fruit, basketry, cordage, thatch

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10

FOOD HARVEST SCREEN

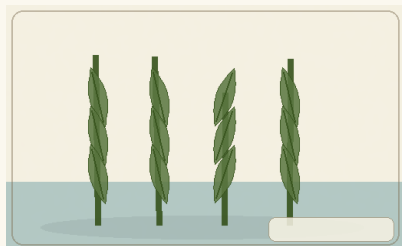
Confirm species, plant part and maturity. Check whether cooking, leaching, peeling, fermenting or repeated water changes are required. Reject mold, animal contamination, roadside plants, chemically treated ground and any food whose safe preparation cannot be completed with current water and fuel.

WATER AND WETLAND EDIBLE PLANTS

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

WATER SPINACH

AQUATIC FOOD



Stylized form diagram — not an identification photograph

Ipomoea aquatica

IDENTIFY: Hollow creeping stems; arrow to lance leaves; pale morning-glory flowers.

HABITAT / SEASON: Warm freshwater ditches, ponds and slow rivers; native or invasive. Season: Warm season.

SURVIVAL USE: Tender shoots are a documented cooked green.

CAUTION: Raw plants can carry parasites and sewage pathogens; avoid polluted water and check invasive-species law.

LOOK-ALIKES: Water hemlock has divided leaves and umbels, not morning-glory flowers.

TASKS: food green

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TRUE SAGO PALM

AQUATIC FOOD



Stylized form diagram — not an identification photograph

Metroxylon sagu

IDENTIFY: Large clustering palm with massive pinnate leaves; trunk stores starch before flowering.

HABITAT / SEASON: Southeast Asian peat swamp and lowland wet forest. Season: Starch before flowering; leaves year-round.

SURVIVAL USE: Processed trunk pith is a major traditional starch; leaves provide thatch and baskets.

CAUTION: Extraction is laborious and requires washing and settling. Do not confuse with toxic cycads called sago palms.

LOOK-ALIKES: Cycads have stiff crown leaves and exposed cones, not a true palm trunk.

TASKS: food starch, thatch, basketry

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12

WATER AND WETLAND EDIBLE PLANTS

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

SEA GRAPES

AQUATIC FOOD

Caulerpa racemosa / C. lentillifera

IDENTIFY: Bright green creeping seaweed with bead-like branchlets or tiny grape clusters.

HABITAT / SEASON: Warm shallow marine flats, lagoons and reef edges. Season: Year-round in warm seas.

SURVIVAL USE: Clean correctly identified sea grapes are documented raw or cooked food in many Pacific and Asian cultures.

CAUTION: Avoid polluted water, harmful algal blooms and look-alike algae. Rinse with clean seawater, not freshwater, until use.

LOOK-ALIKES: Other Caulerpa species vary; some are bitter or invasive.

TASKS: food marine

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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.

GINGER

TRADITIONAL-USE



Zingiber officinale

IDENTIFY: Narrow leaves on pseudostems; thick aromatic branching rhizome; cone-like flower spike from the ground.

Stylized form diagram — not an identification photograph

HABITAT / SEASON: Tropical Asian cultivation and moist disturbed ground. Season: Rhizomes year-round.

SURVIVAL USE: Known rhizomes are documented food, seasoning and traditional-use plant.

CAUTION: Do not dig unknown ginger-family plants. Large medicinal doses can interact with anticoagulants.

LOOK-ALIKES: Wild gingers and turmeric differ in leaf width, scent and flowers.

TASKS: seasoning, medicine

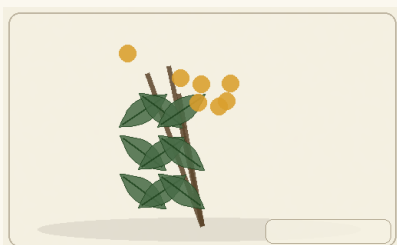
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14

TURMERIC

TRADITIONAL-USE



Curcuma longa

IDENTIFY: Large lance leaves from an underground orange rhizome; pale flower spike with colored bracts.

Stylized form diagram — not an identification photograph

HABITAT / SEASON: South and Southeast Asian cultivation and disturbed humid ground. Season: Rhizomes late season.

SURVIVAL USE: Known rhizomes are documented spice, dye and traditional-use material.

CAUTION: Wild ginger relatives can look similar and some are not edible. Concentrated medicinal dosing is not advised.

LOOK-ALIKES: Zingiber and Curcuma species differ in flower spike and rhizome color.

TASKS: seasoning, dye, medicine

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15

MEDICINAL AND TRADITIONAL-USE PLANTS

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

GOTU KOLA

TRADITIONAL-USE

Centella asiatica

IDENTIFY: Creeping herb with round kidney-shaped leaves on long stalks and tiny clustered flowers at nodes.

HABITAT / SEASON: Tropical wet ground, ditches, rice margins and streambanks. Season: Year-round in warm climates.

SURVIVAL USE: Leaves are documented food and traditional-use plant, usually cooked or eaten from clean cultivation.

CAUTION: Wild plants from wet ground may carry parasites or pollutants. Concentrated medicinal use can affect liver and medicines.

LOOK-ALIKES: Hydrocotyle pennyworts have similar round leaves and require flower examination.

TASKS: food green, medicine

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16

MEDICINAL RESTRAINT

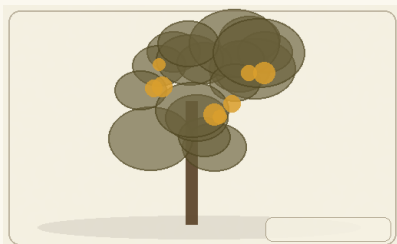
A plant can be culturally important and pharmacologically active yet still be the wrong survival choice. Unknown concentration, dehydration, pregnancy, allergies, chronic illness and medicine interactions can turn a traditional remedy into a second emergency.

POISONOUS PLANTS AND DANGEROUS LOOK-ALIKES

High-consequence species to learn before gathering starts.

CERBERA / SUICIDE TREE

POISON — AVOID



Stylized form diagram — not an identification photograph

Cerbera odollam and related spp.

IDENTIFY: Glossy narrow leaves clustered at twig ends; white five-petaled flowers; mango-like green fruit; milky sap.

HABITAT / SEASON: South and Southeast Asian coasts, mangroves and river edges. Season: Year-round.

SURVIVAL USE: No food use.

CAUTION: Seeds contain potent cardiac glycosides and can be fatal; sap is irritating.

LOOK-ALIKES: Sea mango relatives and edible mangoes differ but fruit similarity is dangerous.

TASKS: poison

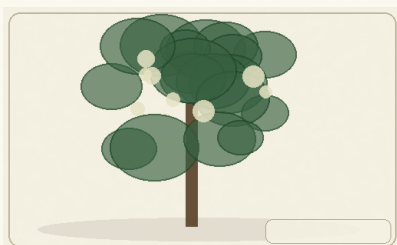
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17

UPAS TREE

POISON — AVOID



Stylized form diagram — not an identification photograph

Antiaris toxicaria

IDENTIFY: Tall tropical tree with rough alternate leaves, milky latex and small fig-like fruits.

HABITAT / SEASON: Southeast Asian lowland forest. Season: Year-round.

SURVIVAL USE: No food use. Historically used for arrow poison.

CAUTION: Latex contains powerful cardiac toxins and can contaminate wounds.

LOOK-ALIKES: Figs also have latex and enclosed fruits but different leaf and fruit form.

TASKS: poison

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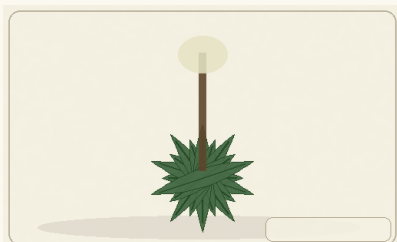
18

POISONOUS PLANTS AND DANGEROUS LOOK-ALIKES

High-consequence species to learn before gathering starts.

CYCADS CALLED SAGO PALMS

POISON — AVOID



Stylized form diagram — not an identification photograph

Cycas spp.

IDENTIFY: Crown of stiff pinnate leaves from a stout trunk; large exposed cones or seeds; no true flowers.

HABITAT / SEASON: Tropical and subtropical Asia and Oceania. Season: Seeds seasonal; leaves year-round.

SURVIVAL USE: Leaves have limited thatch value, but food use is excluded in this guide.

CAUTION: Seeds and pith contain cycasin and neurotoxins; traditional detoxification is complex and failure can be fatal.

LOOK-ALIKES: True sago palm is a flowering palm with enclosed fruit, not a cycad cone.

TASKS: poison

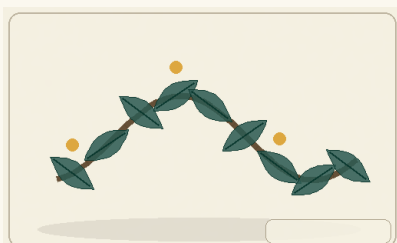
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19

ROSARY PEA

POISON — AVOID



Stylized form diagram — not an identification photograph

Abrus precatorius

IDENTIFY: Slender vine with many small paired leaflets, pink pea flowers and pods exposing red-black seeds.

HABITAT / SEASON: Tropical and subtropical thickets and disturbed ground worldwide. Season: Seeds seasonal.

SURVIVAL USE: No use. Seeds are sometimes used as beads but should not be drilled or handled by children.

CAUTION: Chewed or damaged seeds contain abrin and can be fatal.

LOOK-ALIKES: Other small-seeded legumes lack the distinctive red seed with black spot.

TASKS: poison

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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	Asian bamboos	Use dead, shed or pruned material first.
Arrow or dart shaft	Asian bamboos	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	No reliable candidate among the priority profiles.	Use a different technology or carried tool; do not force unsuitable plant material.
Tinder	Coconut palm, Bananas and plantains	Use dead, shed or pruned material first.
Fuel / coals	Red mangroves, Black mangroves	Use dead, shed or pruned material first.
Cordage / fiber	Rattan palms, Coconut palm, Bananas and plantains, Pandanus / screw pine	Use dead, shed or pruned material first.
Basket / mat	Rattan palms, Nipa palm, Pandanus / screw pine, True sago palm	Use dead, shed or pruned material first.
Container / wrap	Asian bamboos, Coconut palm	Use dead, shed or pruned material first.
Fruit food	Coconut palm, Bananas and plantains, Pandanus / screw pine	Verify part, maturity and preparation.
Green food	Taro, Water spinach, Gotu kola	Verify part, maturity and preparation.
Seed / nut	Nipa palm	Verify part, maturity and preparation.
Root / starch	Breadfruit, Taro, True sago palm	Verify part, maturity and preparation.
Traditional-use	Ginger, Turmeric, Gotu kola	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. Flora of China

Missouri Botanical Garden and Harvard University Herbaria — East and Central Asian scientific flora

http://www.efloras.org/flora_page.aspx?flora_id=2

9. Flora of Pakistan

University of Karachi / eFloras — Himalayan and South Asian flora

http://www.efloras.org/flora_page.aspx?flora_id=5

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.