Medicinal Herbs of Pern

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Picking and storing herbs: the best time to pick herbs is early morning after dew has dried but before plants have been heated by the sun. Wet plants will mold or mildew. While fresh herbs are best for food preparation, dried herbs are better for medicinal purposes as drying tends to concentrate the active components.

Herbs to be dried should be hung upside down in an airy but shaded location (direct sun will fade plants). Roots and heavy stems will need to be cleaned, chopped or sliced, and placed on a screen near (but NOT over) a heat source. When dry all parts should look and smell much as when first picked; colors will be muted and the smell as strong or stronger. Dried herbs should be bottled whole, as grinding will release the oils. These will fade more quickly than whole herbs. Herbs are best stored in opaque glass, or non-metalic containers in a cool, dry, dark place. When used, herbs may be crushed by hand or ground with mortar and pestle.

Using herbs: in all preparations, the common allowance is 1 ounce herb to 2 cups liquid. Fresh herbs require a double amount to produce the same potency, as fresh herbs contain water and are therefore naturally diluted.

Teas: dried herbs are most frequently administered as a medicinal tea. Medicinal teas are much stronger than the common "herbal teas". They are approximately 6-8 times more potent and frequently do NOT taste good. When brewed 15 minutes to several hours, teas are called infusions. Infusions are generally made a pint at a time or so, enough for a full days' use. NEVER use aluminum, iron, or tin containers to prepare teas or infusions-use glass, ceramic, pottery, or enameled steel. A typical tea will require 1 ounce dried herb (or 2 ounces of fresh herb) for 2 cups of boiled water. Be sure to cover the container so that essential oils do not escape with the steam. Strain infusions before storing.

Decoctions: these are made by simmering, and especially good for using heavy stems, barks, and roots. Again, about 1 ounce of dried herbs (2 ounces fresh) should be used per 2 cups water. Add herbs to water that has been boiled, cover and simmer at least 30 minutes.

Syrups: combine 2 ounces dried herb with 1 quart water in a large pot and boil until it is reduced to 1 pint. Strain and add 1-2 tablespoons of honey. (Double amount of herb if using fresh product) Herbal syrups must be stored in a cool (refrigerated) area. A common Pernese cough syrup is called "tussilago", after the Tussilago Farfera herb once used on Earth. This herb was bioengineered into Tussilago Centaurus, as the original plant was a carcinogen. For a stronger cough syrup, distilled numbweed is sometimes added to relieve pain. Harmless flavorings may also be added.

Compresses, poultices and plasters: some herbs do their best work externally. They may be applied in various forms, depending on the specific herb and the ailment to be treated. In general, these treatments are most common for congestion, tension, swellings, sprains, and similar ailments. Compresses are applied hot (take care not to cause burns), and are made by soaking a towel or other cloth in an herbal tea (see above). Poultices are made from dried, crushed or powdered herbs, formed into a paste, and applied directly to the skin. These are effective for drawing out infections, and relieving muscle spasms. Plasters are similar, except they are spread on a cloth so that the medicinal paste does not touch the skin.

Oils and ointments: medicinal oils are the most easily prepared, requiring only that 2 ounces of crushed herb be left in 1 pint of any pure vegetable oil for a period of several days. The oil should be strained before storage. The process can be hastened by gently heating the oil and herb mixture. Great care must be taken to not overheat the oil blend, or the potency will be ruined. Thicker creams and oinments are make by simmering 1ounce of crushed dried herbs in 3/4 lb. of fat. When the herbs have broken down well, the product is strained and allowed to set. When cool, blend in 1 to 1 1/2 ounces of melted beeswax. (A firmer product will result if beeswax is beaten into the herbal blend while it is still warm.) *[Ed. Note: Beeswax actually does not exist on Pern, so inert extracts of certain plants are used instead.]*

Tinctures: these are the most potent form of herbal medicines. Four ounces of powdered herb is added to 1 pint of ethyl alcohol (brandy, vodka, gin, or similar). The bottle is shaken frequently and allowed to set for at least two weeks. The alcohol will separate all the effective properties of the herb into a concentrate. The strained product should be stored in glass; proper dosage may be a few drops to a tablespoon. A further distillation of the tincture results in a "fluid extract" which may be up to ten times more potent than a tincture.

Medicinal Plant Listings

(E) - denotes a plant imported from Earth
(P) - denotes native pernese plant

Aconite (E) - medicinal plant used as sedative; slows the heart and decreases blood presure. Leaves are infused into a liquid form which is usually distilled. Dosage is determined by body mass of patient and administered orally by drops into liquid of some kind. Extremely toxic. Once a commonly known poison. *Aconitum napellus*: perennial with smooth leafy stems; helmet-shaped flowers in white-blue-violet shadings; toothed leaves of dark green.

Agrimony (E) - an herb which has some astringent properties, also used as an tea to relieve minor sore throat. *Agrimonia Eupatoria*: a hairy, deep green perennial. The

aromatic flowers have a spicy smell, and have five yellow-petaled flowers on a spiky stem.

Aloe (E) - used to treat burns and skin problems, stomach disorders, laxative- fresh gel from the leaf is used to sooth minor burns, and as an ingredient in lotions and skin creams. Contains anesthetic, antibacterial and tissue restorative properties. Gel taken internally can relieve some forms of indigestion. Dried aloe latex (also taken from leaves) is a strong laxative, primarily for veterinary use. Also used cosmetically to treat skin blemishes and in hair products. *Aloe barbadendis:* grows in almost all warm climates. Thick, pulpy leaves with barbed edges. Very tall spiky yellow flowers.

Anise (E) - used for digestion, heartburn, coughs. Seeds used primarily for cough syrups, or as a medicinal tea to aid digestion. *Pimpinella anisum:* tall plant with lacy white flower.

Arnica (E) - this plant is used primarily for ointments to reduce inflammation of spreains and bruises, and local pain relief. Flowers are used to prepare liniments. *Arnica montana*: daisylike yellow-orange flowers, 2-3" in diameter.

Borage (E) - may relieve depression. Infusions and decoctions made from the flowers are used to relive fevers, bronchitis, and diarrhea. *Borago officinalis*: annual, self-seeding, hollow, hairy stems, small star-shaped blue flowers.

Comfrey (E) - effective in regenerating tissues of bruises, external wounds and sores. Effective in destroying bacteria. Leaves are mashed or steeped, but cannot withstand boiling or high temeratures. *Symphytum officinale:* thick hairy stemmed annual with mucilaginous compound, clusters of hanging orange/fushia flowers.

Dintale (E) - a variety of Bella Donna or Deadly Nightshade, without the toxic efects. Leaves used to create a tincture similar to atropine, used to treat various forms of poisoning. Effective antidote to depressant poisons. Perennial- tall spiky plant with pale green leaves and bell-shaped purple flowers. Most effective if harvested after flowers have fallen off.

Featherfern (P) - used as an analgesic- contains salicylate compounds related to aspirin. Bushy fern with yellow-green fronds 18-24" high, grows primarily in swampy areas. Harvested in early spring when leaves are fairly springy in texture; later in season the stems become tough and woody. Most commonly dried, then powdered. Powders are mixed with liquid to administer.

Feather herb (P) - used as a febrifuge (reduces fevers). similar to earth herb yarrow, commonly used as a tea for this purpose. Also contains analgesic compounds. Crushed leaves used in paste form to relieve toothache. Powdered feather herb is effective in clotting blood in gashes and from surgical procedures. Short bushy plant with broad deep green leaves and tiny clusters of brilliant blue flowers on tall spikes. Prefers rocky areas.

Fellis (P) - powerful sedative. Distilled from fruit of fellis tree. Used as an anesthesia for surgical procedures and to promote sleep for injured persons. Taste of the distillate is frequently disguised in fruit juices. Powdered form can be used as local anesthesia, or remixed with water to produce an anesthesiac gas that can be inhaled. Leaves can also be used as a sedative if chewed, but care must be used not to overdose. Tree is relatively short, with sharp spearhead leaves, and tends to grow rapidly to maturity. Flowers are sweet-smelling. Bark is occasionally distilled for use as a local astringent for veterinary use.

Feverease (P) - a delicate herb, native to Pern, which when either brewed into a tea or eaten raw can help to quickly reduce fever. Also helps relieve migraine. Leaves are chewed as an analgesic, but have a bitter taste. The leaves do have a sweet, fruity smell that work well in lotions as an insect repellant. Perennial, broad leaves, tall stems with tiny, daisy-like flowers in reds, oranges, yellows and pinks.

Hyssop (E) - (Pernese varieties called hissop and ezob.) Tincture or tea used to treat bronchitis and sore throats. Stems must be harvested before flowers open. Leaves frequently contain a penicillin-like mold effective as an antibiotic. Squarish stems, tall perennial, clustered whorls of blue-violet flowers.

Needlethorn (P) - used to administer some forms of medicinal compounds. Long, very strong, thin hollow thorns are inserted into stainless steel or glass syringes, making a disposable needle for injections, and for tapping blood or other fluids from the body. Best needlebushes grow in a small area of Ista, and are harvested in autumn. Needlethorn spines in spring and summer are poisonous. A single large bush can provide thousands of needlethorns in varying sizes. Needlethorn spines can pierce and aborb the essential juices from anything that comes near them during their poisonous phase. In that period, the bush has an odor that attracts snakes and insects. By autumn, the stem has stored enough moisture and food. The thorns are sealed away from the main stem and the poison dries up and loses all potency. To harvest, one clears a small area near the bottom of a stem, wraps a hand around the stem (without touching the stem proper), and strips upwards. Most needlethorns grow in proximity to the ging tree, which has several useful points. First, needlethorn is ready to harvest when the ging tree is in bloom. Second, the tough, spongy frond of the ging provide an easily available package for freshly harvested needlethorn. One needs only to pull off a frond, lay a handfull of needlethorn on the petiole, and trim the frond into a rectagular shape. The oozing sap is extremely sticky

and dries quickly. Folding the leaf around the thorn and sealing it with its own sap will result in a neat package.

Numbweed (P) - powerful topical analgesic. Bushy plant grows in open plain areas. Thick spongy leaves are harvested and boiled in large kettles. The chopped leaves must be stewed at least three days to reduce into a pulp. Another full day is required to strain pulp, and the resultant juice must be further reduced to proper consistency for use in its most common form-- a strongly analgesic cream or ointment similar to Novocain. Liquid form is sometimes distilled for injection for severe injuries or dental usage. Extremely pure salve is rendered into a powdered form for internal use. In an emergency, fresh bruised leaves may also be used for pain relief, but the raw sap can cause blisters and rash. A major part of Pernese pharmacology, but preparation is regarded with trepidation because of the horrid smell.

Soapwort (E) - also Pernese variety known as redwort. Boiling leaves and roots yields a sudsy solution that has excellent antiseptic qualities. Soapwort is rather mild, and useful for reliving the itch of rashes and eczema. Redwort is harsher, and comparitively stronger, making an excellent disinfectant. Single stemmed plant, white or pinkish flowers in terminal clusters. Redwort has heavier stem, peach-colored flowers, and an astringent smell.

Sweatroot (E/P) - form of ginger- for coughs and colds, sinus congestion, used as an infusion. Teas help relieve nausea, morning sickness, and indigestion. Powdered form helpful for motion sickness.

Thyme (E) - antispasmodic qualities make this useful for asthma, whooping cough, stomach cramps, and dysmenorrhea. Also used as an antiseptic, and in poultices. *Thymus vulgaris*: perennial, many-branched shrub, tiny rolled leaves, clustered 1/4" flowers in lilacto pink. Harvest leaves before flowers bloom.

Tuft Grass (P) - especially effective in treatment of fevers. Seeds from tall tuft stems are used in teas and tinctures. The heart of the plant, just above the root ball, is dried and made into powder that is the most effective treatment for firehead fever. Grows in large, bush-like clumps in marshy areas.