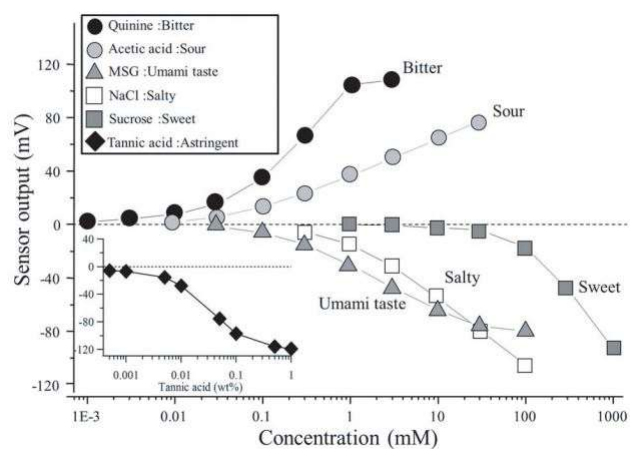


Organolepsis: using our senses to describe medicinal plants

Guido Mase' RH(AHG)

Descriptive language from AHPA 2013, Steven Dentali PhD

Taste receptors and olfactory receptors are often better at assessing medicinal activity than molecular analysis machinery



Appearance Characterization Terms

Shape	Symmetrical	Fracture ⁹	Fibrous
	Asymmetrical		Short
Size	Coarse		Color (if different from unbroken material)
	Fine		Starchy
Clarity	Clear		Resinous
	Translucent		Waxy
	Opaque		Uneven
Color	Red, orange, yellow, green, blue, purple, etc.		Dusty
	Pearlescent, pearly		Woody
	Shiny, sparkly, glossy		Mealy
	Dull, matte		Smooth
	Bright, vibrant		Spongy
	Pale, light		Granular
	Clear, light		Tough with projecting wood fibers
	Muddy		
	Uniform, consistent		
	Swirled, speckled, spotted, blotched		

Texture Characterization Terms

Hard-solids	Moist, wet, sticky, tacky, gummy
	Dry, brittle, flaky, crumbly, lumpy
	Granular, amorphous, porous, agglomerated, crystalline
	Fibrous
	Sublimating, fuming
	Greasy
	Irritating
Soft-solids	Spongy, rubbery, gummy
	Moist, soggy, sticky, tacky
	Wet, deliquescent
	Sublimating, fuming
Semi-solids	Pasty, porous, mushy
	Moist, wet, soggy, sticky, tacky, gelled
	Lumpy, gritty, mealy, grainy
	Velvety, smooth, creamy
Fluids	Thick, viscous
	Watery, thin
	Greasy, oily, creamy, sticky
	Curdled, frothy, fuming

Botanical Fracture Terms

Complete	Material breaks cleanly across its entire breadth.
Incomplete	Material breaks only part way across its breadth.
Tenacious	Material will not break with typical force but requires hitting with a hammer.
Flexible	Material that bends rather than breaks.

Aromatic or Spicy Aromas with Examples

Anise type (spicy and fragrant)	Anise, fennel, sassafras bark, star anise, tarragon
Camphor type (characteristic turpentine-like odor)	Camphor, epazote, eucalyptus, grindelia, juniper, wormwood, yarrow
Caraway type (aromatic, pleasant to many)	Caraway, coriander, cumin
Chocolate or cacao bean type (faintly aromatic)	Cacao bean butter and hulls, guarana (faint), coffee (very faint)
Cinnamon type (very spicy or aromatic, related to clove type)	Cinnamon, canella, cascarilla, coto bark
Clove type (very aromatic)	Cloves, American wild ginger, bayberry leaves, calamus, caraway, cardamom, coriander, cubeb, ginger, pimento
Maple syrup type (faintly aromatic, characteristic)	Fenugreek, slippery elm bark
Mint type (very aromatic)	Peppermint, buchu, damiana, horsemint, pennyroyal, spearmint
Nutmeg type (very aromatic)	Nutmeg, cola nut (faint), mace
Oregano type	Oregano, marjoram, summer savory, thyme

Fragrant, Pleasant, or Sweet Aromas with Examples

Balsam type	Balsam fir, pine bark, poplar buds
Floral type or orange blossom, rose type (very fragrant, related to honey type)	Orange blossoms, apple blossoms, iris flowers (faint), linden flower, rose, tuberose, ylang ylang
Fragrant type (sharp, floral)	Basil, calamus, feverfew, lavender, rosemary, sage
Fruit or apple type (very fragrant, related to flower type)	Apples, chamomile, figs, prunes, raisins, and many so-called berries such as strawberry, raspberry, etc.
Lemon balm type	Lemon balm, lemon grass, lemon verbena
Resin type	American storax, benzoin tree, guaiacum resin (very faint), myrrh
Tea/hay or grassy type	Alfalfa, tea, bonset, comfrey, dandelion leaf, oat straw
Vanilla type	Vanilla, deer tongue, sweet grass, vetiver, white or yellow sweetclover
Wintergreen type (very fragrant, related to flower type)	Wintergreen, sweet birch, yellow birch

Foul/Strong Aromas with Examples

Dandelion type (ammonia odor)	Old dandelion, ashwagandha, coral root, poke root
Garlic type (sulphurous odor)	Garlic, asafetida, horseradish, onion
Narcotic type (heavy, nauseating, and suffocating; increased by moisture)	Belladonna leaves, bittersweet, black cohosh flowers, cannabis, celandine, coral root, gelsemium, hellebore, henbane, Jimson weed leaves and seeds, lady's slipper, opium, tobacco, wild lettuce
Rancid type (due to decomposition of oils and fats)	Castor & croton beans (old), <i>Delphinium</i> spp., saw palmetto, ergot and Seneca snakeroot (when old)
Valerian type (age developed)	Valerian, black haw, cramp bark, hops (when old)

Other Aromas with Examples

Bean type	Astragalus, beans, calabar beans, marshmallow
Bitter type	Chicory, dandelion root, gentian
Bitter almond type (aromatic, somewhat pleasant, marzipan - like)	Bitter almond, apple seeds, peach leaves, quince seeds and other seeds containing hydrocyanic acid, wild cherry bark
Bland type	Corydalis, dried red root, Jamaica dogwood, hydrangea, oak bark, stoneroot, wild yam
Patchouli type (musk-like, heavy, disagreeable to many)	Patchouli, musk ambrette, sandalwood (faint), sumbul
Seaweed type (briny odor)	Bladder wrack, Irish moss, kelp
Soil type (earthy, faintly musty odor)	Very marked in sarsaparilla, noticeable in nearly all root herbs, rhizomes, tubers and most barks, especially when moist.

Flavor/Taste Descriptors with Examples

Bitter	Artichoke leaf, barberry, black coffee, chicory root, dandelion leaf, gentian, goldenseal, strong tea
Burnt	Burnt coffee beans
Characteristic	Ginger, lemon, licorice, mint, etc.
Dry	Blackberry root bark, oak bark, black tea
Earthy, metallic	<i>Echinacea pallida</i> root
Foul, putrid, rancid, stale, spoiled, off	Saw palmetto
Fragrant bitter	Black walnut hull, elecampane, mugwort, wormwood
Neutral/Bland	Chia seed, eleuthero, flax seed, Irish moss, marshmallow, psyllium seed, red clover, slippery elm, and the wood of many roots, stems, and trunks
Nutty, bean	Astragalus, maca
Pungent cold	Camphor, <i>Echinacea</i> spp., eucalyptus, menthol, spilanthes
Pungent hot	Black pepper, chili, garlic, ginger, horseradish, juniper berry, mustard, onion, prickly ash
Salty	Dulse, glasswort, nori, wakame
Soapy	Cilantro, horse chestnut, yucca
Sour, acid	Anla, bilberry, lemon, elderberry, rhubarb stem, schisandra (primary flavor), sheep sorrel, tree peony, vinegar
Sweet, sugary	Codonopsis, fennel seed, goji berry, jujube date, licorice, logan berry, slippery elm, stevia
Umami	Fermented kombu, morels, nutritional yeast, soy products, shiitake, sun-dried tomatoes, truffles

Mouthfeel Descriptors with Examples

Acrid, tingling, numbing, irritating	Chinese processed aconite, <i>Echinacea</i> spp., kava, lobelia, processed pinellia, prickly ash, skunk cabbage, spilanthes
Cooling, cold, refreshing	Sweet birch, eucalyptus, many mints, wintergreen
Drying, astringent	Bayberry root bark, betelnut palm, blackberry root, geranium, green persimmon, oak bark, schisandra, tea
Hot, burning	Black pepper, cayenne pepper, ginger, horseradish, prickly ash, yerba mansa
Mucilaginous, slippery, slimy	Comfrey, malva, marshmallow, slippery elm bark
Oily	Flax seed, saw palmetto berry, sesame seed
Sandy, gritty	Horsetail, yerba santa (old)
Sticky, gummy	Balm-of-Gilead, balsam, frankincense, grindelia, myrrh, pine pitch, tolu, yerba santa