THE BOTANICAL AND TERPENIC FLAVOR WORLD OF GIN

α-Pinene

a-Pinene

β-Pinene

TERPENES

laevo-limonene

a-pinene

β-pinene

myrcene

sabinene

+ Other

Chemical

Class

Notes

Flavor

a-cadinene

THE KEY TO GIN BY

DEFINITION

FLAVOR DESCRIPTORS [Aroma and taste = flavor]

Piney, earthy, woody/resinous, herbal (camphoraceous)

Terpenic, cilantro, herbal, peppery, green juniper berry

Terpenic, herbal, woody, citrus, rose, celery-spice, carrot

Woody terpenic citrus pine spicy

Fresh woody herbal vetiver

GIN

BOTATICALS:

TERPENTIC

ELAIOR

CONTRIBUTIONS

Fresh pine, terpenic woody resinous minty (camphoraceous balsamic) spicy

Chart # 1. Ten of the Most Commonly Used Botanicals.

tree from the

native to

n Asia -

cultivated for

its seed as a

culinary nut.

Along with

the peach, it

is classified

subgenus

Amygdalus.



(E,E)-2,4-decadienal: Oily, cucumber, melon, citrus, pumpkin, nutty, fatty chicken, coriander, brothy, aldehydic/green, fried

benzaldehyde: Fruity/cherry/tropical, almond, maraschino cherry, oily, nutty, woody

benzyl alcohol: Chemical, fruity/cherry, almond, balsamic,

hexanal: Green, woody, fatty/sweaty, vegetable, apple, grassy, citrus, orange

al: Waxy, aldehydic, rose, fresh orris, citrus/orange peel, green lemon peel, cucumber, fatty, melon, raw potato, oily nutty coconut

toluene: Sharp, sweet, solvent, paint thinner accents.



cardamum)- a spice made from the seeds of several plants in the genera Elettaria and Amomum in the ginger family Zingiberaceae. Three species;

Cardamom

Aframomum corrorima ("false cardamom" & Amomum subulatum. Green, Ethiopian, black cardamom respectively, with Green (aka. true cardamom) the most recognized & common variety.

The essential oil of cardamom is mostly composed of monoterpenes. One of the main compounds is 1,8-cineole at more than 20%, with α -Pinene (0,5% to 2,5%), sabinene (1% to 5,5 %), myrcene (up to 3%) & limonene (1,4% to 7%) also part of the monoterpenes

Cardamom volatile flavor components:

1,8-cineole (eucalyptol) - Minty, camphoreous/cooling, herbal, eucalyptus, medicinal

4-carvomenthenol - Peppery cooling, woody, earthy, clove, spicy, citrus

 α -pinene, α -terpineol, α -terpinyl acetate, β -pinene, linalool, sabinene [See other botanicals]

linalyl acetate - Sweet, green, citrus nuanced, bergamot, lavender, woody, floral spicy, terpenic, waxy, herbal

"Cinnamomum cassia is differentiated from "true" cinnamon. Cassia is prized by distillers. The bark is thicker, and although some describe the flavor as being "less delicate" than true cinnamon, the thicker, hardier bark is better suited to distillation."

(E)-Cinnamaldehyde: cinnamon, sweet, spicy, aldehydic, aromatic, balsamic, cinnamyl, resinous, honey, powdery, candy, red hots, faint

Linalool: citrus, orange, lemon, floral, waxy, woody. Eucalyptol (1,8 cineole): medicinal, eucalyptus, herbal, camphoraceous. (±)-Camphor: camphoraceous (cooling).

Eugenol: sweet, spicy, clove, woody, phenolic, allspice.

The chemical composition of

cinnamon oils has been shown to contain eugenol (10.5%), trans-3-caren-2-ol (10.2%), benzyl benzoate (9.99%), caryophyllene (9.34%), eugenyl acetate (7.71%), α -phellandrene (7.41%), α -pinene (7.14%).

coumarin which can be harmful in large

Sweet, spicy, candy, cinnamon, warm

Clove, carnation, phenolic, peppery, smoky, woody

Peppery, woody, earthy, musty, mentholic, citrus,

Cinnamomum cassia, Chinese cassia or Chinese cinnamon, is an evergreen tree originating in southern China & widely cultivated there & elsewhere in South & Southeast Asia. It is one of several species of Cinnamomum used primarily for its aromatic bark, which

is used as a spice.

Licorice [Many components - a few base details only here]

[See Anise]

Aldehydes: (E)-2-decenal, (E)-2-heptenal, (E)-2-octenal, 2,4-decadienal (E)-anethol (E)-cinnamaldehyde 2-methoxy-4-vinyl phenol 4-carvomenthenol* *aka. 4-terpineol 5-methyl furfural carvacrol carvone cherry propanol cuminaldehyde estragole ethyl palmitate eugenol

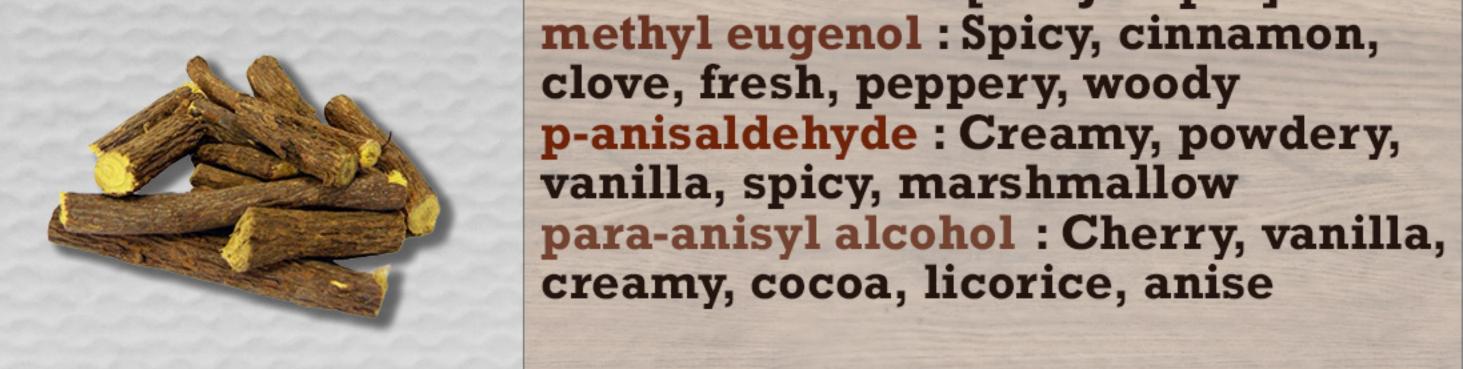
herbal, weedy, clove Sweet, brown, coffee, bready, caramellic, grain, maple Spicy/herbal, phenolic/medicinal, woody, smoky, thyme Minty, licorice Fruity/cherry, sweet, hay, cereal, bready, celery Spicy, cumin, green, herbal, vegetable Sweet, licorice, fennel, phenolic, weedy, spicy, celery Waxy/creamy/dairy, fermented, buttery/oily, vanilla Spicy, clove, allspice, aromatic, phenolic, woody Y-Nonalactone Coconut, creamy, waxy, fatty, milky lavandulol Floral, waxy, mimosa, herbal Herbal/minty, mentholic, spicy, peppermint, peppery piperitone spathulenol Earthy, herbal, fruity Spicy, phenolic, thyme, medicinal camphoraceous thymol

Common name of Glycyrrhiza glabra, a flowering plant - bean family Fabaceae,

from the root of which yields a sweet,

Other incl.: linalool, methyl eugenol, octanoic acid, palmitic acid.

LICORICE LIQUORICE



acetophenone: Powdery, bitter, almond, marzipan, cherry, coumarinic α-pinene: [See Juniper] B-bisabolene: Balsamic, woody estragole: Sweet, licorice, phenolic, weedy, spice, celery-like : [See Juniper] methyl eugenol: Spicy, cinnamon, clove, fresh, peppery, woody

spicy, mimosa, medicinal

tol: Sweet, anise, licorice,

Anise, also called aniseed or rarely anix, or sweet cumin - family Apiaceae. Flavor & aroma (licorice flavor) of its seeds have similarities with some other spices & herbs, such as star anise fennel, licorice, tarragon. Scientific name: Pimpinella

α-irone decanoic acid lauric acid palmitic acid myristic acid octanoic acid

benzophenone ethyl palmitate methyl myristate

FIXATIVE?

Woody, violet, fruity, raspberry, orris, berry, seedy Geranium, plastic, herbal, metallic, rose, phenolic Soapy, waxy, fruity Fatty, waxy, coconut, bay Waxy, creamy/dairy, fermented, buttery/oily, balsamic, vanilla Waxy, creamy, fatty, soapy, lard, tallow, dairy Fatty, waxy, petal Waxy, fatty, pineapple, citrus peel, soapy, creamy, cheesy

Rancid, soapy, cheesy, fatty, brandy-like Floral, balsamic, green, berry, tropical, vegetable, waxy

A Most Expensive Perfumery Ingredient

QUOTED IN THE TABLE BELOW RIGHT, PLUS A FEW OTHERS.

Species and details on oil compositions from various communications and sources will vary. Several aroma/taste = flavor resources - largely Good Scents.

THIS FIRST CHART FOLLOWS ON MOSTLY FROM NINE NOTED

INGREDIENTS FOR TWELVE GINS FEATURED IN AN ARTICLE

CORIANDER



Coriander, aka. cilantro & dhaniya Sci. name: Coriandrum

Ethanol

α-pinene α-terpineol citronellol γ-terpinene geraniol geranyl acetate laevo-limonene linalool

cuminaldehyde (±)-camphor

p-cymene

[See Juniper] Citrus, woody, lemon, lime, lilac, soapy Fresh floral, rosy, clean rose Fresh, herbaceous, citrusy (lime), sweet/woody, tropical Floral, sweet, rose, fruity (peach), citronella, citrus Floral, rose, lavender, herbal, green, waxy [See Juniper] Citrus (orange, lemon), floral, waxy, aldehydic, woody

Woody, terpenic, citrus, lemon, spicy, cumin, origanum, cilantro, bell pepper

earth/damp woodlands

[See Juniper & Coriander]

[See Juniper & Coriander]

noted as at the left.

black pepper

Minty, terpenic

[See Coriander]

[See Juniper]

sabinene

Spicy, green, cumin, herbal spicy Camphoraceous - (cooling)

Angelica archangelica (aka. wild celery)

ANGELICA {archangelica} [ROOT]



ANGELICA ORRIS ROOT And, in this Author's Opinion Ants & Honey NOTES most volatile flavor notes (for extended

MIDDLE

be fixatives - meaning they help hold back the shelf-life flavor stability) as in perfumery However, chemical details are not readily known yet. Much RESEARCH

Carene - sweet & pungent odor, fir needles, musky

Woody, spicy, citrus, tropical, terpenic, green, oily

Many appreciate the nuances of the citrus fruits &

can distinguish, in blind tests, the actual fruit eaten

or smelled. Here a list of common & some different

components in the fruits is noted. Flavor terms not

applied here but some common notes appear with

the other botanicals, including the triumvirate set

(Z)-γ-bisabolene α-cadinene, α-copaene, α-pinene,

β-cubebene, β-ocimene, β-pinene γ-cadinene,

Orange peel (bitter): \alpha-pinene, \alpha-terpinene,

laevo-limonene, linalyl acetate, myrcene

Lime peel: (E)-citral, (Z)-citral, α-pinene

myrcene, neryl acetate, p-cymene, sabinene

 δ -elemene, laevo-limonene, linalool, myrcene,

α-terpinene, β-bourbonene, β-caryophyllene oxide,

Drange peel (sweet): α-terpinene, laevo-limonene,

β-bisabolene, β-pinene, γ-terpinene, laevo-limonene,

Grapefruit Peel: (E)-limonene oxide,

Citrus, herbal, terpenic, green, woody, green pepper,

GINTRIUMVIRATE = CORIANDER ANGELICA

TUNIPER

Rhizoma iridis is

the root of Iris

α-phellandrene

(+)-3-carene

α-pinene β-phellandrene γ-terpinene laevo-limonene myrcene sabinene

Rutaceae Family Citrus L. spps

Citrus Peels Lemon, Lime, Orange Grapefruit & other

Citrus fruits

(see use in gins) [Esp. "new world gins", focusing a little less on the juniper]



Nootkatone is an organic compound, a sesquiterpenoid, which means that it is a C15 derivative that also contains an ygen-containing functional group. It is the st valuable aroma compound of grapefruit: grapefruit peel, citrus, orange, bitter, gardenia woody

Almonds Cubeb pepper Grains of paradise

Some terms are based on example gins Many more terms apply on flavor wheels, but a linear classification is better suited to gin; that use certain ingredients terms here give the general guide for the taster to further explore the depths of floral, herbal, spicy notes, etc.

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