

Medicinal Properties of Herbal Spices

Spice	Medicinal properties
Marjoram	Carminative, expectorant, tonic, astringent
Mint (peppermint)	Stimulant, stomachic, carminative, antiseptic
Mint (spearmint)	Stimulant, carminative and antispasmodic
Oregano	Stimulant, carminative, stomachic, diuretic, diaphoretic and emmenagogue
Parsley	Stimulant, diuretic, carminative, emmenagogue, antipyretic, anti-inflammatory
Rosemary	Mild irritant, carminative, stimulant, diaphoretic
Sage	Mild tonic, astringent, carminative
Tarragon	Aperient, stomachic, stimulant, febrifuge
Thyme	Antispasmodic, carminative, emmenagogue, anthelmintic, spasmodic, laxative, stomachic, tonic, vermifuge

Insect repellent properties of herbal spices

Spice	Mode of application	Insects
Peppermint and basil	Powdered aerial parts	<i>Callosobruchus maculatus</i>
Basil	Fumigation of essential oil	<i>Drosophila melanogaster</i>
Mint	Essential oil	<i>Callosobruchus analis</i>
Peppermint	Leaf powder	<i>Tetranychus cinnabarinus</i> , <i>Aphis gossypii</i> , <i>Tribolium confusum</i> .
Oregano	Essential oil	<i>Tetranychus cinnabarinus</i> . <i>Aphis gossypii</i>

Antimicrobial activity of herbal spices

Spice	Mode of application	Activity against bacteria	Activity against fungus
Basil Basil	Essential oil Methyl chavicol	<i>Aeromonas hydrophylla</i> , <i>Pseudomonas flourescens</i>	<i>Ascophaera apis</i>
Oregano and basil.	Essential oil	<i>Listeria monocytogenes</i> , <i>Staphylococcus aureus</i> <i>Escherichia coli</i> , <i>Yersinia enterocolitica</i> <i>Pseudomonas aeruginosa</i> , <i>Lactobacillus plantarum</i>	<i>Aspergillus niger</i>
Pepper mint, thyme,	Essential	<i>Agrobacterium tumefaciens</i> , <i>Ralstonia solanacearum</i> , <i>Erwinia carotovora</i>	
Spearmint, basil, parsley	Essential oil	<i>Staphylococcus aureus</i> , <i>Escherichia coli</i>	<i>Candida albicans</i> , <i>Aspergillus niger</i>
Oregano and mint Oregano	Essential oil Essential oil or carvacrol		<i>Aspergillus ochraceus</i> <i>Candida albicans</i>
Oregano, thyme	Essential oil or Carvacrol	<i>Streptococcus pneumoniae</i> R36a. <i>Bacillus cereus</i>	

Relative antioxidative effectiveness (RAE) of herbal spice Extracts

Substrate, conditions

Lecithin emulsion, daylight, room temperature, 26 days

Lard, 50°C

Chicken fat. 90°C

Methylinoleate, 100°C

Lard, 75°C

TGSO. 100°C

Low-erucic rapeseed oil, 60°C, 23 days

Methanol

Minced chicken meat, 4°C and -18°C

Raw pork meats. pretreated with NaCl, 4°C and -18°C

Microwave cooked pork patties treated with NaCl. -18°C

RAE

Rosemary>sage

Rosemary>sage>marjoram

Sage>rosemary

Sage>deodorized rosemary>

untreated rosemary

Oregano>thyme>marjoram>

spearmint>lavender>basil

Summer savory>peppermint>

common balm>spearmint>

oregano>common basil

Sage>thyme>oregano

Oregano>cinnamon=

marjoram>caraway

Caraway>wild marjoram

Sage>basil>thyme

Basil=thyme

Antioxidants isolated from herbal spices

Spice

Rosemary

Sage

Oregano

Thyme

Summer savory

Marjoram

Antioxidants

Carnosic acid, carnosol, rosmarinic acid, rosmannol

Carnosol, carnosic acid, rosmannol, rosmarinic acid

Derivatives of phenolic acid, flavonoids, tocopherols

Carvacrol thymol, *p-cymene*, caryophyllene, carvone, borneol

Rosmarinic acid, carnosol, carvacrol, thymol

Flavonoids