

# Grow your own medicine.

November 17, 2022

According to a government website, there are up to 55 companies in New Zealand engaged in the production of pharmaceuticals or their ingredients. The high cost of developing and bringing a drug to market, compounded by the scarcity of capital in NZ, has led to the industry sector being in a stagnant state, and declining over the long term.

The majority of drugs used by the New Zealand public come from China, India or the USA, plus a few other minor players.

We are currently living in a time of global unrest due to a number of factors including a global recession, high inflation, shortage of resources across food, fuel, manufacturing, and shipping, political unrest in many countries and between superpowers, the threat of a nuclear war and the long-term effects, both on health and the economy, of the covid-19 pandemic response.

Any of these factors becoming critical could mean that the pharmaceutical medications on which so many of us rely may no longer be shipped to New Zealand. It makes sense therefore to look to herbal medicines as a solution to the problem of supply, demand and rising prices of pharmaceutical products, where possible.

Let's face it, before big pharma started to mass produce medication, in the old days herbal remedies were all we had.

Many herbs with medicinal properties can be easily grown in your own back yard.

Me and my wife already had a small herb garden with mainly culinary herbs (some of which also have medical properties), but we are now growing a variety of fairly common herbs from seed, to use as our own herbal apothecary.

What follows is a roundup of some of the herbs we're currently growing and their possible uses. I hope this article will be of use to you and encourage all Kiwi's to give it a go. Grow your own medicines and put big pharma out of business.

**Lemon Balm** – a prolific growing plant and can be difficult to contain. Lemon balm (*Melissa officinalis*) is an herb from the mint family.



The leaves, which have a mild lemon aroma, are used to make medicine and flavor foods.

Lemon balm contains chemicals that seem to have a sedative and calming effect. It might also reduce the growth of some viruses and bacteria.

People use lemon balm for cold sores, anxiety, stress, insomnia, indigestion, dementia, and many other conditions.

Lemon balm leaves can be made into a soothing tea or added to a fresh salad for a lemony zesty flavour.

**Mint** (we grow common mint, peppermint, spearmint, Asian mint) - mint is often used as a domestic herbal remedy, being valued especially for its antiseptic properties and its beneficial effect on the digestion. It helps reduce nausea and can be helpful for travel sickness. It is best not used by pregnant women because large doses could cause an abortion, in a worst-case scenario.



A tea made from the leaves of most mint species has traditionally been used in the treatment of fevers, headaches, digestive disorders and various minor ailments. The leaves are harvested just before the plant comes into flower and can be dried for later use. The essential oil in the leaves is antiseptic, though it can be toxic in large doses.

And of course, it makes a great sauce to add to roast lamb and boiled potatoes.

**Calendula** (common name Marigold) Calendula was not a major medicinal herb, but it was used in historic times for headaches, red eye, fever and toothaches.



Calendula officinalis oil is still used medicinally as a remedy for healing wounds. Its extracts have antiviral, antigenotoxic, and anti-inflammatory properties. Calendula in suspension or in tincture is used topically for treating acne, reducing inflammation, controlling bleeding, and

soothing irritated tissue. Limited evidence indicates Calendula cream or ointment is effective in treating radiation dermatitis.

It is used externally for a wide range of skin problems and inflammations. The petals can also be taken internally for many gynecological, feverish or toxic conditions, and to move liver energies. Harvest from early summer to late autumn.

**Chamomile** is a surprisingly useful plant. It can be made into a tea to treat irritable bowel syndrome, poor appetite and indigestion.



Drink a cupful at night for insomnia, anxiety and stress. One home dried Chamomile flower can give more flavour than a teabag of commercial offerings.

Add 200-400ml strained infusion to a baby's bath water to encourage sleep.

The infusion can also be used as a mouthwash to soothe mouth irritations.

Dissolve 5-10 drops of tincture in warm water to use as an eyewash to help conjunctivitis or strained eyes.

Add 2 teaspoons of flower heads to a bowl of boiling water and inhale the steam to ease catarrh, hay fever, asthma or bronchitis.

A diluted tincture can be helpful for teething and colic in babies.

Can be used in an ointment for insect bites, wounds, itchy skin and for anal and vulval irritation.

Warning – do not exceed stated doses of this herb and avoid using its oil completely in pregnancy, as it is a uterine stimulant.

**Comfrey** is an interesting herb. It is a restricted herb in both Australia and New Zealand. The leaves and flowers are mainly used externally in creams and infused oils for sprains, arthritic joints and other injuries. It can also be taken internally in limited quantities mainly for digestive tract ulceration. If you are going to eat the leaves use only the small tender ones. Internal use comes with a warning that it has been linked to liver cancer in rats in some studies. Topical application is safer and more effective for arthritis than internal use. Avoid using on dirty wounds, as rapid healing can trap dirt or pus.



The traditional name for comfrey was Knitbone. It contains allantoin which encourages bone, cartilage and muscle cells to grow. The leaves can be crushed and applied to an injured limb and the allantoin is absorbed through the skin and speeds up healing.

Harvest the leaves and flowers in early summer when in full flower.

The root has similar properties but tends to be colder and nourishing in action. It can be rubbed on varicose veins/varicose ulcers and should be harvested in spring or autumn when allantoin levels are at their highest.

Use in a tincture for gastric ulcers or esophageal damage.

As a poultice to apply to fractures such as broken toes, ribs or hairline cracks in larger bones.

As a cream for bone and muscle damage including osteoarthritis and as an infused oil for use on arthritic joints, bruises, sprains and other traumatic injuries.

**Feverfew** has been hailed as a cure and a prophylactic for migraines. In the past it was also used externally for headaches.



Eat one fresh leaf daily to keep away migraines

Make a weak tea of the leaves and flowers (15gm of herb to 500ml water) after childbirth to encourage cleansing and tonifying of the uterus; also, for period pain associated with sluggish flow and congestion.

As a tincture – take 5-10 drops every 30 minutes at the onset of a migraine. Can also be added to other herbal remedies to treat rheumatoid arthritis – add up to 2ml of tincture three times a day.

And finally, use as a poultice – Fry the fresh herb in a little vegetable oil and apply hot (but not scalding) to the abdomen for colicky pains.

**Dandelion** – the root, leaves, flowers and seed heads are used as a diuretic and liver stimulant. They are also said to clear heat and toxins from the blood and so are used for boils and abscesses.



Fresh leaves can be added to a spring salad as a cleansing remedy

Juice – liquidize the leaves when diuretic action is needed. Take up to 20ml of juice, three times daily.

Infusion – made from freshly dried leaves - for a milder diuretic action take as a tea for gout and eczema. Also, as a gentle liver and digestive stimulant. Or use the root for a more potent infusion.

The root of the dandelion can be dried, roasted and powdered to be used as a coffee substitute.

**Yarrow** (*Achillea millefolium*) derived from the name of the Greek hero Achilles. It was reputedly used to treat the wounds of the soldiers in the Trojan War.



The flowers are rich in chemicals which are converted by steam into anti-allergenic compounds. Harvest flowers during summer and autumn.

The leaves encourage the clotting of the blood so can be used fresh and applied to wounds or to stop nosebleeds. The leaves were also once used to relieve migraines.

Harvest leaves throughout the growing season.

Flowers - used in an infusion for upper respiratory problems or externally as a wash for eczema.

Use fresh flowers in an inhalation using boiling water to relieve hay fever and mild asthma.

In a massage oil for inflamed joints. Dilute 5-10 drops of yarrow oil in 25ml of infused St John's wort oil.

In a chest rub for chesty colds and flu, combine with eucalyptus, peppermint, hyssop or thyme oils diluting a total of 20 drops oil in 25ml almond or sunflower oil.

Leaves – Use fresh to stop nosebleeds and clot wounds

As a poultice – bind washed fresh leaves to cuts and grazes

In an infusion to reduce fevers and as a digestive tonic

As a tincture for urinary disorders or menstrual problems. (Has also been prescribed for cardiovascular complaints).

As a compress – soak a pad in the infusion to soothe varicose veins.

Avoid large doses during pregnancy, as the herb is a uterine stimulant. Also, prolonged use on the skin can lead to increased photosensitivity.

**Thyme** – as well as being a culinary herb it also has medical qualities.



Known as “mother of thyme” probably due to its traditional use for menstrual disorders. Pliny recommends it as an antidote for snake bites, “poison of marine creatures” and headaches.

The Romans also burned the plant in the belief that the fumes would repel scorpions.

Use leaves, stem and flowers.

Infusion – for chest infections, stomach chills or irritable bowel.

Tincture – for diarrhea or as an expectorant for chest infections.

Gargle – Use infusion or diluted tincture as a gargle for sore throats

Syrup – Take a syrup made from the infusion for coughs and lung infections.

Essential oil of Thyme can be used in a chest rub – dissolve 10 drops of thyme oil with 20ml almond or sunflower oil for chest infections.

Oil – dissolve 10 drops in 20ml water and apply to insect bites and infected wounds. Add 5 drops to bath water for weakness and arthritic conditions.

Massage oil – dissolve 10 drops each of Thyme and lavender oil in 25ml almond or sunflower oil for rheumatic pains or strained muscles.

CAUTION – avoid therapeutic doses of thyme and thyme oil in any form during pregnancy as the herb is a uterine stimulant.

Thyme oil can irritate the mucous membranes, so always dilute well.

**Celery** – as well as being a familiar and popular vegetable it is also an important medicinal herb.

The whole plant is a gentle stimulant, nourishing and restorative for weak conditions and has anti-toxic properties - used as a cleansing tonic.



Seeds – used in an infusion – for rheumatoid arthritis and gout. Combine 2 teaspoons of seeds with 1 teaspoon lignum vitae and add 1/2 teaspoon of this mix to a cup of boiling water.

Essential oil – for painful gout in the feet or toes, add 15 drops of oil to a bowl of warm water and soak the feet.

Massage Oil – Dilute 5-10 drops of celery oil with 20ml of almond or sunflower oil and massage into arthritic joints.

Root – Tincture – in the past used mainly as a diuretic in hypertension and urinary disorders, as a component in arthritic remedies, or as a kidney energy stimulant and cleanser.

Whole Plant – Liquidize the whole fresh plant (seed, roots, stalk, leaves) and drink the juice for joint and urinary tract inflammations, such as rheumatoid arthritis, cystitis or urethritis, for weak conditions and nervous exhaustion.

Caution – don't use oil or large doses of seeds during pregnancy. Do NOT buy seeds meant for germination/cultivation as they are often treated with fungicides.

**Sweet Wormwood** - *Artemisia annua* – also known as **Sweet Annie**.



The following information was taken direct from [herbamedicine.com](http://herbamedicine.com)

Medicinal benefits of Sweet Annie are so wide that they range from preventing aging to supporting the immune system.

AIDS patients can take advantage the medicinal benefits of Sweet Annie since this herb slows down a fatal infection called pneumocystis pneumonia (PCP) that is caused by a fungus. Immune-compromised individuals, such as those with AIDS, can be affected by the human cytomegalovirus (HCMV) which causes congenital infections that lead to hearing loss and developmental problems. Sweet Annie has shown be able to inhibit this virus.

One of the medicinal benefits of Sweet Annie is its anti-allergenic properties. Artesunate, a semi-derivative of this plant, can potentially prevent the degranulation of mast cells induced by Immunoglobulin E.

Artemisia Annua helps treat constipation since it stimulates the intestine, so it produces peristaltic movements. It also has purging effects which insert bile discharge from internal liver and gallbladder to the intestine, thus helping the passage of stool. It works better in cases of chronic constipation, specially those that have mucus discharge.

Medicinal benefits of Sweet Annie include the treatment of jaundice and hepatitis, being a helpful liver tonic. It can trigger bile secretion which cleans the liver and expels the waste of the body. A study published in the Clinical Infectious Disease Journal in 2008 shows how this herb inhibits certain viruses such as members of the Herpesviridae family including herpes simplex virus type 1, hepatitis B virus, hepatitis C virus and Epstein-Barr virus.

Sweet Annie is an antispasmodic, so it helps relieve abdominal pain and cramps. Medicinal benefits of Sweet Annie have been used since ancient times to treat painful periods. This herb improves the flow of menstruation, which reduces the pain.

This herb is anti-inflammatory, so it relieves purpuric rashes which are caused because of inflammation and blood vessels bleeding under the skin. It can also treat nose bleeding.

Make a poultice of Sweet Annie to apply externally to heal bruises, stop itching, bacterial infections, sprains, arthritis, joint pain and nerve pain. It also helps with swollen limbs which are caused by gout and rheumatism.

Medicinal benefits of Sweet Annie include anti-aging properties, which is why its essential oil is being included in many beauty products. Perfumes also contain this herb since it has such a pleasant aroma, that is also used in aromatherapy to calm patients.

Recent studies have shown the medicinal benefits of Sweet Annie in the fight against cancer. This herb help stop the proliferation of cancer cells. Iron is necessary for the DNA replication of cancer cells, which have higher contents of iron than healthy cells. Artemisinin interacts with iron found in the blood and induces apoptosis of cancer cells. At the same time, this component leaves healthy cells intact. This is considered one of the safest types of cancer treatments.

Investigations are still being conducted, but it has shown to be effective against breast, colon, lung and prostate cancer, along with bicalutamide. Its tea can help people with leukemia, as it is a powerful antioxidant which causes cytotoxicity towards leukemia cells.

Malaria is caused by a parasite found in flies that infects humans. As of now it is the most powerful medication against this disease. Pharmaceutical use of sweet Annie isolates the artemisinin compound and modifies it in the laboratory.

Malaria parasites are quite tolerant and resistant. There is some concern of developing recurrent symptoms if other traditional quinine treatments have been used before. The amount of artemisinin found in Sweet Annie may be too little to kill all the parasites, but large enough to make it resistant to further treatment with pharmaceutical drugs that contain artemisinin and coartem.

People drink Sweet Annie tea for 4 to 7 days to improve the symptoms. For some, this may be enough. Tea should not be boiled, because the heat will destroy the chemical that fights malaria. Instead, steep in hot water.

A study done by several researchers concluded that the extracts of *Artemisia annua* were effective against the virus Covid-19. Plant extracts were more potent against the virus than artemisinin alone. Medicinal benefits of sweet Annie do not block the virus from entering the cells, but it does stop it from replicating, which ends up killing it. This herb is also efficient at treating two new variants from the UK and South Africa. The good news is that this natural alternative could be a low-cost treatment for the pandemic virus.

Artemisinin and the rest of the derivatives of the *artemisia annua* variety are strong anthelmintics, which mean they can expel worms such as threadworms and ringworms. It is anti-parasitic so it can be used to treat the parasitic worm *onchocerca volvulus*.

#### PRECAUTIONS WHEN USING SWEET ANNIE

Sweet Annie and almost all the *Artemesia* family have toxic properties. It is recommended to consult with a specialist and follow the prescribed dosage when using medicinal benefits of sweet Annie. Prolonged use of this herb must be avoided. More is not better with this herb. Possible side effects can include loss of appetite, dermatitis, nausea, dizziness, diarrhea and stomach pain.

Those on prescription drugs should consult with their doctor before taking advantage of the medicinal benefits of Sweet Annie. Anti-seizure drugs are especially problematic since this herb could cause seizures. It can also interfere with anti-diabetic drugs, leading to hypoglycemia. So, make sure to check your blood glucose level regularly and adjust dosage accordingly. *Artemisia annua* also causes excess citric acid, so it should not be used by people with ulcers or gastrointestinal problems.

The pollen of Sweet Annie and other varieties of *Artemesia* can cause allergic reactions, including hay fever. It can provoke allergies to those who are sensitive to the Compositae or Asteraceae family which include daisies, marigolds, ragweed and chrysanthemums.

Pregnant women, breast-feeding and diabetics should be cautious about using this herb. Studies have shown that it causes birth defects or even the death of the fetus during the first trimester. There is no information about the second and third. However, it should only be used if no other treatment for malaria is available.

**Valerian** – *Valeriana officinalis* – is nature's tranquilizer.



Parts used – Root – fresh and dried.

Good for nervous tension, especially anxiety and insomnia. Can also strengthen the heart and sometimes reduce high blood pressure. It encourages healing in wounds and ulcers and is effective topically for muscle cramps. It may also be used as an expectorant, and can help tickly, nervous coughs.

Harvest in autumn.

Maceration – soak 2 teaspoons of the chopped fresh root for 8-10 hours in a cup of cold water. Use as a sedating brew for anxiety and insomnia. Add 2-3 drops of peppermint water to help disguise the flavour.

Infusion – for anxiety and insomnia

Tincture – for insomnia or as a sedative. The dosage can vary considerably with individuals: up to 5ml may be required, but in some people, this can cause headaches so start with a low dose of 1-2ml and work up. Combine with liquorice and other expectorants such as hyssop for coughs.

Compress – soak a pad in the tincture for muscle cramps

Wash – use the infusion or maceration for chronic ulcers and wounds, and for drawing splinters.

CAUTIONS – Do not take for more than 2-3 weeks without a break as continued use could lead to headaches and palpitations. Valerian enhances the action of sleep-inducing drugs, so avoid if taking this type of medication. Do not confuse with the garden plant, red “American” valerian which has no medicinal properties.

**Mullein** – parts used flowers and leaves.



Flowers (harvest flowers individually rather than the entire spike)

Tincture – take up to 20ml per day for chronic, dry coughs and inflamed throats.

Gargle – Use an infusion to gargle for throat infections.

Syrup – make a syrup from the infusion for chronic, hard coughs.

Infused oil – Make by the cold infusion method and use drops for earache (only if you know for certain that the eardrum is NOT perforated). Use as a salve on wounds, hemorrhoids, eczema or inflamed eyelids.

Leaves – infusion – use a strong infusion of dried herbs – 50gm to 500ml water for chronic coughs and throat inflammations. Also promotes sweating, so can be useful for fever chills with hard coughs.

Tincture – use for chronic respiratory disorders; combine with stimulating expectorants if required, such as mulberry bark, cowslip root, elecampane, sweet violet, anise or thyme.

**Lovage** – *Levisticum officinale* – parts used, root and seeds.



Generally, few side effects, but do not take for more than 3 weeks continuously.

Promotes sweating, warming digestive tonic, expectorant, anti-catarrhal, diuretic.

Dose – 4-8gm daily taken as a tincture or a tea.

Tincture – 0.5 – 2ml three times per day.

Tea - prepared with 2 to 3 grams of lovage root and 1 cup of hot water (left to soak for 15 to 20 minutes), ingested three times per day

**Black Cumin** – parts used – seeds.



Helps reduce swelling. Is an antioxidant, strengthens the immune system and may help prevent cancer.

Safeguards the liver, helps expand the tracheal muscles and reduces shortness of breath.

Has antimicrobial and antibacterial agents that kill bacteria on contact. It is also has antiviral and antifungal properties, and anti-convulsive agents that help reduce seizures.

Helps with male sexual health – increases sperm count

Also helps with women's health - Black cumin is an excellent source of iron and calcium, thus beneficial for lactating, pregnant, and menstruating women. Helps increase breast milk secretion in women because it has a high amount of thymol that increases mammary gland secretions.

Applying oil containing black cumin can relieve breast pain or tenderness during the menstrual cycle.

Health experts consider that black cumin seeds have the capability to treat other strains of bacteria that are resistant to antibiotics including microbes that cause HIV, staphylococcal, malaria, tuberculosis, influenza, candida, and Gonorrhea.

Black cumin is used as herbal folk medicine all over the world for the treatment and prevention of a number of diseases like asthma, dyslipidemia, bronchitis, diarrhea, diabetes, hyperglycemia, and related abnormalities headache, cancer, dysentery, infections, obesity, hemorrhoids, hypertension, back pain, hypertension, gastrointestinal problems, sexual diseases eczema, boils, rheumatism, fungal infections, cardiac diseases, and as an abortifacient.

The prophet Mohammed is mentioned as saying in the Koran, "This black cumin is healing for all diseases except death."

I have been unable so far to find out what a safe dose of black cumin is. It seems mainly to be ingested in food – buns, breads, pastries, sauces, beverages, curries, vegetables and pulses.

It is a blood thinner and can also affect female fertility so best not taken in excess.

**Evening Primrose** – parts used – seeds from the flower – made into an oil. Evening Primrose Oil (EPO)



Can be used as a supplement internally or applied topically.

Very effective in treating skin conditions and improving overall skin health.

Could be helpful in treating the symptoms of PMS, breast pain and hot flashes.

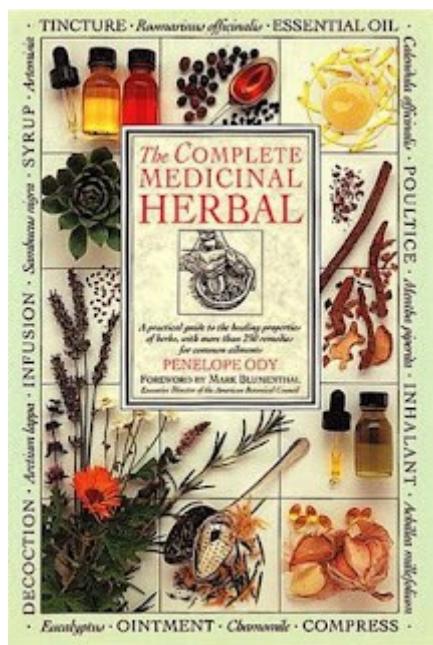
Also has the potential to reduce rheumatoid arthritis pain without causing unwanted side effects.

How to use: Take 560 to 6,000 mg of EPO daily for 3 to 12 months.

These are just a few of the herbs with medicinal qualities that we are growing at the moment. There are more to come, and I'll cover those in another post soon.

If you are going to grow medicinal herbs, it would be a good idea to get yourself a good herbal reference book to help with identification and give advice on how to process and use the herbs.

One book I can highly recommend is The Herb Society's Complete Medicinal Herbal by Penelope Ody MNIMH.



As usual. Thank you for reading. Any comments/suggestions are always welcome.