

Plants in New Zealand Poisonous to Children



Cestrum elegans, cestrum

This pamphlet applies to all parts of New Zealand and replaces the separate lists for the North and South Islands from 1999. Also available is "Safety in Pre-School Centres", a list of plants that are not recommended to be grown in pre-school centres.

Introduction

Most books on poisonous plants in New Zealand have been designed for farmers and have concentrated on those which are poisonous to stock. Although the information in these books may be relevant, it is not always directly applicable to people. Plant material that may be eaten safely by animals and birds may not necessarily be safe for humans. This checklist was prepared at the request of childcare workers who wanted guidance on plants which might be harmful if eaten by young children. The lists are not intended to be used for the identification of plants or as a guide for weediness. In addition to the plants listed, a very brief account of poisonous fungi is included at the end of the list of plants that cause poisoning when taken internally. (See the Further information section at the end.)

The following lists contain only those plants which children may be tempted to eat and touch and which are commonly found in and around gardens, parks, and other recreation areas. The first list includes plants that cause harm when eaten. For most species in this list, the main thing is to keep young children from eating the fruits or berries when they are present on the plant. As a general rule, children should be discouraged from eating any new plant material unless guided by an adult. The second and much shorter list includes plants that can cause skin irritation when they are touched, and pre-school children should be supervised when there is a likelihood of contact with such plants. However, many of these only react with skin when there is contact with sap from

broken parts of the plant. The third list is of plants with fruits that children may be tempted to eat but which are not poisonous and thus need not cause concern.

Scope of the list

Many potentially poisonous plants are not listed because they are unlikely to be eaten by children, e.g., box (Buxus sempervirens) and its relations such as the now popular Allegheny spurge (Pachysandra terminalis) used for ground cover. Also many plants in the forget-menot family (Boraginaceae) which have harsh bristly leaves, and bracken or rarauhe (Pteridium esculentum), a traditional Māori kai/food plant which requires cooking to make it edible. Also there are other poisonous but toughleaved members of the erica or rhododenron family that are not mentioned in the list because they are not only unattractive to children but are often uncommon, eg. calico bush (Kalmia latifolia) and its close relations. Most gardens in New Zealand contain poisonous plants. Many plants in the following well-known families are poisonous or have poisonous parts: daffodil, snowflake and snowdrop (Amaryllidaceae), oleander (Apocynaceae), arums (Araceae), ivy and five finger (Araliaceae), swan plant, (Asclepiadaceae), heathers and rhododendrons (Ericaceae), lilies (Liliaceae), poppies (Papaveraceae), buttercups and clematis (Ranunculaceae), titoki (Sapindaceae), fox-gloves and snapdragons (Scrophulariaceae), and potatoes and tobacco (Solanaceae). In addition, many species in the large legume or pea family (Fabaceae) and the rose and apple family (Rosaceae) are poisonous to some extent.

Effects of consumption

At some stage of their life cycle many cultivated garden plants and weeds have chemical properties that can cause harm to some people. (The season and stage of growth influence the amount of poisonous substances present in plants.) Do not panic if young children play near such plants. Plants need not be destroyed just because they have poisonous properties. Most of these plants are not tempting for children to eat, at least in potentially harmful amounts; or would pass through the digestive system without causing problems. Examples of the latter are the legumes kowhai and laburnum whose seeds are extremely hard but would only be toxic if ground up first and swallowed. In New Zealand it is inevitable that as children grow up they will be exposed to plants with poisonous properties. To keep things in perspective remember that fatalities are extremely rare and usually a child does not eat enough of a poisonous plant to cause serious illness.

Not everyone who feels ill after eating leaves, flowers, or berries, has been poisoned; it may be simply a failure to digest them properly that causes the stomach-ache. Many plants which are harmless or only slightly toxic can cause stomach upsets if eaten in large quantities; even some edible but very acidic fruits can have this effect. Sometimes the cause is fungi growing on fruit and vegetables that have been kept too long, or in the wrong conditions. People react in different ways to eating poisonous plants, so some people may be relatively unaffected, while some others may become seriously ill.

Plants with edible and poisonous properties

Not all poisonous plants taste unpleasant, so bitter taste is not an indicator of the presence of a poison. It is well known that some plants which are very poisonous when raw can be palatable when cooked. Two of the best examples are the traditional Māori kai/food plants, karaka and taro. Taro belongs to the arum family which contains other edible plants that are used elsewhere, especially in the Pacific islands, but no member of the family can be eaten raw. Certain plants that are widely eaten in small amounts because they are considered to be beneficial to health and wellbeing, such as comfrey, are unsafe to eat in large amounts. Even such well-known plants as potato and rhubarb have notably toxic properties, and all green parts of the potato (including tubers which have been exposed to light) are poisonous. Similarly, only the stalk of the rhubarb leaf should be eaten. Be careful not to eat food that has come in contact with any part of a very poisonous plant, such as using a poisonous plant as a barbecue stick, because this can also be harmful

Non-poisonous plants

A list of non-poisonous, and often edible, fruiting plants follows the list of poisonous species. Most of these are among our most common garden trees and shrubs. Some plant families have no members in New Zealand likely to cause poisoning. These safe families include: iceplant (Aizoaceae), cabbages (Brassicaceae), chickweed (Carvophyllaceae), fat hen (Chenopodiaceae), stonecrop (Crassulaceae), mānuka (Myrtaceae), grasses (Poaceae), and coprosma (Rubiaceae). In addition, the families to which our common catkin-bearing trees belong are unlikely to produce symptoms of poisoning, although the leaves and catkins may taste bitter and eating too many fruits of oaks and beech can cause digestive upsets. These include alders, beeches, birches, sweet chestnuts, oaks, poplars, walnuts, and willows.

Rare poisonous plants

Some plants that are well known overseas as being very poisonous are not dealt with because they are rare in New Zealand and thus very unlikely to be encountered. As already stated, this is not an identification manual so it was felt that inclusion of all such plants would make the list unnecessarily cumbersome. Examples of such excluded plants are: henbane (*Hyoscyamus niger*), poison ivy (Toxicodendron radicans) and Chinese lacquer tree (*T. vernicifluum*). An apparent exception is deadly nightshade (*Atropa bella-donna*) but this very rare plant in New Zealand is only mentioned in the main list because of confusion with the common black nightshade. Of course if one goes to a place where there is a large collection of plants such as a botanic garden, arboretum or some nurseries, many more plants with at least some degree of toxicity in their tissues must be expected.

Warning: If you suspect a child has ingested parts of a poisonous plant, immediately contact the National Poisons Information Centre Urgent 24 Hour Phoneline on 0800 POISON (0800-764766).

For non-urgent information, call 03-479 1200.

If the child is displaying serious symptoms of poisoning, treat as an emergency and dial 111 for an ambulance.

1. Internal Poisons—poisonous if eaten

Angel's trumpet (*Brugmansia candida*). Named for its large pendulous white flowers, this large, well-known shrub is related to the thorn apple. It is a dangerous plant, as all parts are poisonous. A frost-tender plant mainly found in lowland areas towards the coast.

Apple of Peru (*Nicandra physalodes*). An annual plant related to the edible-fruited cape gooseberry, but with bell-shaped blue flowers. Most parts are likely to be mildly poisonous.

Apple of Sodom (Solanum linnaeanum). This shrub is so prickly that it does not invite close attention but its fairly large mottled berry (green and white when immature, yellow at maturity) has been reported as poisoning children.

Arum lily (Zantedeschia aethiopica). All parts are poisonous, but take particular care that children do not eat the attractive spikes of yellow-orange berries. Likewise nearly all other members of this family have similar poisonous properties in all their parts. The toxins present mainly affect the alimentary system from the mouth downwards. Even a tiny part ingested can cause burning in the mouth and throat as well as stomach pains and vomiting, the onset of these symptoms occurring dramatically and beginning within a minute or so.

Asparagus (*Asparagus officinalis*). The small bright red berries produced by mature female plants in summer are mildly poisonous.

Bitter almond (*Prunus dulcis*). The kernels are poisonous. Note: bitter almonds (with white flowers, pink at the base) are not as common as the ordinary edible form of *Prunus dulcis* known as almond or sweet almond (all pink flowers).

Bittersweet (*Solanum dulcamara*). The small purple flowers and shining scarlet berries are poisonous. Only likely to be found in the south island and southern districts of the north island.

Black nightshade (*Solanum nigrum*). This plant is only moderately toxic and the ripe black berries, which are similar to black currants, are scarcely or not poisonous at all. <u>Note</u>: this is the plant most people mistakenly call deadly nightshade. The true deadly nightshade (*Atropa bella-donna*) can live up to its common name, but is fortunately very rare and only recorded in Christchurch. True deadly nightshade has a relatively large bell-shaped, brownish-purple flower, as opposed to the white star-like flowers of black nightshade, and its glossy black berries can be twice the size of those of black

nightshade.

Blueberry lily [see tūrutu]

Boxthorn (*Lycium ferocissimum*). The orange-red berries are probably poisonous. Note that the green spines on boxthorn are often not noticed until the bushes are touched. Mainly occurs wild along the coast, and in some gardens.

Broom (*Cytisus scoparius*). The seeds are poisonous, especially if chewed and crushed before swallowing. The poisons are similar to those in its relation, the laburnum, but broom seems to be less harmful. Spanish broom (*Spartium junceum*) has larger flowers and is commonly grown in some areas although it has not naturalised extensively like the common broom. The seeds of the two species are similar and probably have similar poisonous properties.

Bushman's poison (Acokanthera oppositifolia). Although only fairly common and almost confined to warm regions north of the Volcanic Plateau, this South African shrub is included because it is most likely to be grown in the Auckland area. Bushman's poison is one of the most poisonous plants in New Zealand. All parts are toxic, especially the shoots and roots. The fruit is like a small blue-black plum. It belongs in the oleander family of which most members are dangerous.

Castor oil plant (*Ricinus communis*). The attractively mottled seeds are the usual parts eaten, sometimes with serious effects. The New Zealand plants usually have purple leaves.

Celery-leaved buttercup (*Ranunculus sceleratus*). This is one of the most toxic species of buttercup. It grows in wet places such as in ditches, along streams and around ponds and lakes. The parts most likely to be put into the mouth are the glossy divided leaves which resemble those of celery. Contact with mouth and lips can produce blistering, but fortunately the bitter burning sensation usually prevents material being swallowed.

Cestrums (*Cestrum* species). There are several species of these popular ornamental garden shrubs, with flower colours ranging from scarlet and rose to white or orange. Fruit colours are white, black, or sometimes red. All parts are very poisonous. Does not grow in colder areas.

Cherry laurel (*Prunus laurocerasus*). The small black fruits have kernels which are poisonous.

Chilean jasmine (*Mandevilla suaveolens*). A climbing plant with fragrant white flowers which is

usually grown on house walls or trellises. Like many other members of the oleander family, *Mandevilla* has poisonous white latex in all parts. The long pods are bean-like, but the seeds inside are small and winged. Mainly grown in warmer areas.

Comfrey (*Symphytum officinale* and its hybrid S. \times *uplandicum*). Although the leaves are used as a general tonic, if used in quantity they can be harmful over a prolonged period.

Corsican hellebore (*Helleborus lividus* subsp. *corsicus*). A commonly cultivated evergreen herb, all parts of which are poisonous.

Cotoneasters (Cotoneaster species). The pretty red berries, which nearly all species have, seem to be mildly poisonous, but have never caused serious harm. Because they are so abundant in gardens and public places, children may often eat a few berries without parents being aware.

Cruel plant [see moth plant]

Daffodils and jonquils (Narcissus species). These well-known spring flowering bulbs contain poisonous properties and neither flowers nor bulbs should be eaten. Although it is unlikely that enough would be taken to cause illness, they regularly feature in overseas works on poisonous plants, along with snowdrops (Galanthus species) and snowflakes (Leucojum species) and cases of poisoning in humans are known. Similar properties are present in their South African relatives such as species of Nerine, Crinum and Amaryllis. The last is listed separately because one species, belladonna lily (Amaryllis belladonna) is such a common garden plant.

Daphnes (*Daphne* species). All species are poisonous. A few have attractive red berries.

Datura [see thorn apple]

Deadly nightshade [see black nightshade]

Delphiniums (*Delphinium* species). All parts are poisonous. [See the closely related larkspurs.]

Dumb canes (Dieffenbachia species). Very common house and patio plants with large deep green leaves variously spotted or streaked with white or cream. The sap is very poisonous as with other members of the arum lily family. Dieffenbachia species are often called "mother in law's tongue" in New Zealand but this name porperly applies to an unrelated plant. The usual English name "dumb cane" relates back to a time

when African slaves in the West Indies were tortured with the juice from this plant. A number of other plants in this family have become more widely grown in recent years as indoor and patio pot plants, especially in warmer parts of the North Island. They are all poisonous and have similar properties to the arum lily.

Elderberry or **elder** (*Sambucus nigra*). The large clusters of little black juicy berries can be made into jam or wine, but they easily can cause stomach upsets if too many are eaten raw. It mainly grows from the Volcanic Plateau southwards.

Elephant's ear (Alocasia brisbanensis). It is related to taro (Colocasia esculenta) and is a member of the poisonous arum family. Elephant's ear is a fairly commonly cultivated ornamental plant in warmer parts of the North Island and in the Nelson area, as well as being wild to a limited extent in a few North Island places. Although it can be cooked and eaten like the related taro, elephant's ear seems to be more toxic as shown by the tubers or rhizomes taking much longer for the toxic compounds to be broken down. This is the plant known as kape or 'ape to Pacific Islanders because of an almost indistinguishable relation in the Pacific Islands (Alocasia macrorrhizos) that is cultivated for food.

English holly [see holly]

Fatsia (*Fatsia japonica*). The berries of this ornamental large-leaved evergreen shrub closely resemble those of its relation, ivy. Although details of the toxicity of *Fatsia* are unavailable, assume that it is similar to ivy.

Five finger or **whauwhaupaku** (*Pseudopanax arboreus*). This very common plant is likely to be poisonous to some degree because it belongs to the ivy family, however no records of poisoning are available. It has blackcurrant sized berries.

Foxglove (*Digitalis purpurea*). All parts of this widespread weed and garden plant are very poisonous.

Gloriosa lily (*Gloriosa superba*). All parts of this beautiful climbing plant are poisonous. The tuberous roots are especially dangerous and most reported cases of human poisoning have been caused by eating these.

Hairy nightshade (*Solanum physalifolium*). This plant has mottled green and white fruits which should be treated as poisonous. It is increasingly found in vegetable gardens, mainly in the Bay of Plenty, but is spreading elsewhere.

Hellebores (*Helleborus* species). These plants are often grown close to houses and all parts are very poisonous. [see winter rose and Corsican hellebore.]

Hemlock (*Conium maculatum*). One of our most poisonous plants; all parts should be avoided, especially young plants and seeds. The unpleasant smell and purple markings on the stem easily distinguish this from parsley.

Holly or **English holly** (*Ilex aquifolium*). The scarlet berries should not be eaten because, like most parts of the tree, they are poisonous. This well-known tree is mainly grown in colder areas from the Volcanic Plateau southwards.

Horse chestnuts (*Aesculus* species). The seeds, commonly called conkers, are mildly poisonous. These should not be confused with the edible, but unrelated, sweet chestnut. It is mainly grown in colder areas from the Volcanic Plateau southwards.

Iceland poppy (*Papaver nudicaule*). All parts of this common garden plant are very poisonous. It has coloured sap like many other types of poppy but is much more harmful than the other common species found in New Zealand.

Inkweed (*Phytolacca octandra*). All parts of this plant should be treated as being poisonous, but it is the erect spikes of poisonous black berries which children might find attractive. Rarely found in the southern half of the South Island.

Italian arum (*Arum italicum*). All parts are very poisonous, including the orange berries.

Ivy (*Hedera helix*). Most parts are poisonous, including the black berries.

Japanese spindle tree (Euonymus japonicus). This commonly cultivated evergreen shrub has attractive but poisonous pink spindle berries and orange-red coated seeds. Unlike the spindle tree the Japanese spindle tree is evergreen and produces fruit mainly in warmer areas.

Jerusalem cherry (*Solanum diflorum* and *S. pseudocapsicum*). For practical purposes these very similar species can be regarded as one. Their orange-red berries are very poisonous.

Karaka (*Corynocarpus laevigatus*). The attractive orange fruits are poisonous. However, the situation is not straightforward because the fleshy outer part of the fruit can be eaten raw but the kernel containing the seed has to be detoxified before it can be eaten, the latter being the part prized by

Māori people. This traditional food was only safe to eat after a long and complicated process. The trees mainly grow in warmer coastal areas, at least as far south as Banks Peninsula.

Kōwhai (*Sophora microphylla* and *S. tetraptera*). The yellow seeds are very poisonous if eaten, but only if they are ground or crushed before swallowing. Otherwise, they pass through the digestive system and cause no harm.

Laburnum (*Laburnum* anagyroides). The black seeds are very poisonous if they are chewed or crushed before swallowing, as with kōwhai. It mainly grows in the southern half of the North Island and in the South Island.

Lantana (Lantana camara). It is more common for children to be affected by eating the small blue-black berries, although stock have been poisoned too. In New Zealand there are several forms with different coloured flowers and differing degrees of toxicity, but to be on the safe side none of them should be eaten. A commonly cultivated shrub in warmer areas but which also grows wild north of Auckland.

Larkspurs (Consolida species). These ornamental annuals are closely related to delphiniums, and all parts are poisonous. Although larkspurs and delphiniums have no fleshy fruits, they are so poisonous that even the pretty flowers could cause illness if eaten. Commonest in colder areas

Lily of the valley (*Convallaria majalis*). All parts are poisonous if eaten, but the orange berries are most likely to attract young children. Although uncommon, it is presently available in nurseries in the North Island.

Lily of the valley shrubs (*Pieris* species). Like most members of the heather family, these plants are poisonous. The little white flowers should not be eaten.

Lupins (*Lupinus* species). All the species commonly grown have poisonous seeds which, if crushed or chewed before being swallowed, result in the release of toxins.

Monkshood (Aconitum species, especially Aconitum napellus). All parts of these herbaceous perennials are very poisonous. It is even dangerous for children to play with the attractive hooded delphinium-like flowers because it seems that toxic substances can be absorbed through the skin, especially delicate areas such as around the mouth. Monkshood grows in all parts of the North Island, and generally through the South Island, especially

seen in colder areas, but is rarer than delphiniums.

Morning glories (*Ipomoea* species). The seeds of some species contain very powerful hallucinogenic drugs. As with other hard seeds, the effects are only evident if they are crushed or chewed before being swallowed.

Moth plant or cruel plant (*Araujia sericifera*). The white latex in all parts of this plant is poisonous, so the green choko-like fruits of this climber should not be put in the mouth. Mainly grows in warmer areas where it is sometimes naturalised.

Ngaio (*Myoporum* species). These very poisonous plants mainly grow near the sea, either wild or in cultivation. They are easily identified by the numerous pale leaf spots seen when held to the light, and by the purple berries. Both the native ngaio (*M. laetum*) and Australian ngaio (*M. insulare*) should be regarded as equally harmful.

Nightshades (some *Solanum* species). Species of *Solanum* should be treated with great caution since they all contain poisonous compounds to some extent, particularly in any green parts. The main species of concern for children are: poroporo, potato, bittersweet, Jerusalem cherry and hairy, woolly and black nightshades.

Oleander (*Nerium oleander*). All parts are extremely poisonous. Fortunately, the bitter taste deters children from swallowing it. Does not thrive in cold inland areas of both islands.

Opium poppy (*Papaver somniferum*). Although not as poisonous as Iceland poppy, the opium compounds in this plant make it one to be avoided, particularly by children.

Peach (*Prunus persica*). The kernels are poisonous but the very hard corrugated stone around them is not easily broken, so they are unlikely to be eaten by children.

Pepper tree (*Schinus molle*). The strings of little pink berries hanging on this attractive ornamental tree seem to be moderately poisonous, particularly the seed. <u>Note</u>: the native pepper bush or kawakawa (*Macropiper excelsum*) has nonpoisonous, but peppery-tasting, orange, fleshy fruiting spikes. Neither species thrives in cold inland areas of both islands.

Persian lilac or **white cedar** (*Melia azedarach*). Persian lilac is deciduous and when the leaves fall the bunches of poisonous yellow fruits are very conspicuous. A common street tree in the Auckland

and Bay of Plenty areas.

Poinsettia (*Euphorbia pulcherrima*). This plant is a spurge, all species of which are poisonous. The milky sap can burn the delicate lining of the mouth. It is often grown as a pot plant for the Christmas trade and in the warm northern part of the North Island it is a typical garden shrub. See other *Euphorbia* species under spurges.

Poroporo (*Solanum laciniatum* or *S. aviculare*). The poisonous green or yellow berries should not be eaten, although when orange and fully ripe they are scarcely toxic when fresh, and not at all when cooked. The two species of poroporo are very similar and are only easily distinguished by the flowers. For practical purposes the two species can be regarded as one.

Potato (*Solanum tuberosum*). The parts most likely to poison children are the green or whitish berries produced on some varieties. Potato tubers which are green from light exposure are also poisonous.

Privets (*Ligustrum* species). All species have poisonous black, blue-black or dark purplish berries, which might be eaten by children. Tree privet (*L. lucidum*), privet (*L. ovalifolium*), and most abundantly, Chinese privet (*L. sinense*), are the usual species from the Waikato and Bay of Plenty northwards. In colder areas southwards the main species are the last two, as well as the abundantly fruiting deciduous common privet, *L. vulgare*, in the South Island.

Rhododendron species and varieties. The tree-like, pink-flowered *Rhododendron arboreum* hybrids, common over most of New Zealand, have poisonous flowers, and honey made from them is also toxic. However, all rhododendrons should be regarded as poisonous.

Rhubarb (*Rheum rhabarbarum*). The leaf blades are poisonous on this common vegetable plant.

Snowberry bush (*Symphoricarpos albus*). The white marble-sized berries of this deciduous garden shrub are poisonous and are particularly conspicuous after the leaves fall. Mainly grown in colder parts of the country, especially in the South Island. <u>Note</u>: It is not to be confused with the native snowberry (*Gaultheria depressa*), a prostrate evergreen shrub with similar, but edible, berries.

Spindle Tree (*Euonymus europaeus*). The pink fruits with their orange seeds are attractive but poisonous, as are all parts of the tree. It is the spindle berries that are most likely to be eaten. Mainly seen south of the Volcanic Plateau in colder

areas.

Spurges (*Euphorbia* species). All species are poisonous [see also 3. skin irritants]. The milky sap can burn the delicate lining of the mouth [see also the unrelated swan plants]. Beware especially of caper spurge (*E. lathyris*) which should not be confused with the unrelated true edible capers (*Capparis spinosa*). Note: not all plants with milky sap are poisonous, for example, the unrelated dandelions (*Taraxacum* species) which are harmless.

Stinking iris (*Iris foetidissima*). Many irises are poisonous but the main parts likely to be eaten in this species are the prominent orange seeds that are displayed when the fruits open, a feature lacking in other irises.

Swan plants (*Gomphocarpus fruticosus* and *G. physocarpus*). These two shrubby plants are so similar that they can be regarded as the same for all practical purposes. Like all members of the asclepias family the tissues are full of poisonous white milky latex, so even the bladder-like fruits should not be eaten.

Taro (*Colocasia esculenta*). All parts of this popular Polynesian food crop are poisonous, so the root and leaves must be cooked properly before being eaten. Even if eaten when only partly cooked, it will burn the throat. It is a member of the poisonous arum lily family.

Thornapple or datura (*Datura stramonium*). The black seeds are sometimes eaten and contain a powerful, dangerous drug, as do other parts of the plant. This weed has white trumpet flowers and appears in gardens and waste places in summer. The name thorn apple is sometimes wrongly applied to angel's trumpet, which belongs to the same section of the nightshade family, although it looks quite different.

Tītoki (*Alectryon excelsus*). The round black seeds in their scarlet cup are a familiar sight in many areas, but especially in the Auckland region and northwards, and this striking colour contrast appeals to all ages. Tītoki is included because of its attractive fruits and the uncertainty as to whether or not they are toxic. It is sensible to avoid it because many members of the soap tree family are poisonous.

Tropical periwinkle (*Catharanthus roseus*, commonly known as *Vinca rosea*). An annual with pink or white flowers. Although an important medicinal plant, tropical periwinkle is very poisonous. It is a member of the oleander family

that is mainly grown in warm northern areas.

Tūrutu or **blueberry lily** (*Dianella nigra*). This native plant in the flax family has attractive violet berries reported as being poisonous. Australian species are sometimes grown, especially in Auckland, and their berries may also be poisonous. Tūrutu grows mainly in parts of the North Island and western and southern parts of the South Island.

Tutsan (*Hypericum androsaemum*). This small shrub is often seen in bush remnants and plantations. Although not as poisonous as some other *Hypericum* species, such as the well-known St. John□s Wort (*H. perforatum*), the black berries should not be eaten.

Tutu (*Coriaria* species). All species are very poisonous. The fleshy black berries should be avoided, because the seeds inside them are poisonous. It grows in bush remnants and margins, in scrub, and often in places modified by humans, like plantations. The usual lowland species is *C. arborea*, and in mountains this species grows with the smaller *C. sarmentosa*.

White cedar [see Persian lilac]

Winter rose (*Helleborus niger*). This plant is often grown close to houses in private gardens, and all parts are poisonous.

Wisteria (*Wisteria* species, usually *W. sinensis*). This beautiful climber is grown around many houses for its hanging clusters of mauve, or less commonly, white flowers. The pods and seeds of this legume are poisonous, but fortunately they are not nearly as common as the flowers.

Woolly nightshade (*Solanum mauritianum*). This very familiar shrub or small tree has little globular dull yellow berries. These are probably not as poisonous as in many other *Solanum* species, but they should not be eaten.

Yew (*Taxus baccata*). Although nearly all parts are poisonous, only the soft red berry with its poisonous green seed is likely to be eaten by children.

2. Poisonous Fungi

Poisonous Fungi

There are many fungi in New Zealand and the majority are not poisonous except to certain allergic people, but because they are often difficult to identify one should avoid eating any unknown fungus. In all cases it is the reproductive structure that we call the toadstool or mushroom that may be eaten. The term mushroom is usually restricted to

the edible species of *Agaricus* that are commonly sold or collected growing in grassland. The word toadstool refers to any other fungus with a cap and stem (this may be long to very short) and thus includes both poisonous and non-poisonous species. The poisonous properties of some fungi, especially of native species, have not been properly investigated, and many of the fungi whose properties are better known are introduced species that grow in association with introduced temperate trees. The four fungi named in the list are all common, at least in some areas of both main islands, and also usually grow under or near introduced trees in gardens, parks, reserves and similar places.

Death cap (*Amanita phalloides*). One of the most poisonous fungi known. Although widespread in New Zealand, it is much less common than its better-known relation the fly agaric, *A. muscaria* [see below]. Death cap usually grows beneath oak trees, and may be increasing at present, as the fly agaric seems to be. Death cap has a yellowish or greenish-white cap, so is immediately recognisable from the more conspicuous fly agaric. Both fungi have white gills and a volva (membrane) at the base of the stem at ground level, this being a prominent white cup in the death cap. Note: edible mushrooms (*Agaricus* species) do not have a volva and the gills are pale pink to deep pink or pinkish brown.

Fly agaric (*Amanita muscaria*). This conspicuous red or orange-red toadstool with a cap that is speckled with white warty lumps is very poisonous if eaten. It is found where birches, oaks, pines, and native beech grow. (See also death cap above)

Magic mushrooms (*Psilocybe* species). There are several species of these small poisonous toadstools with a conical brownish or yellow-brown cap and rather dark gills. The stem is very slender, pale yellow and at least in some species shows a bluish stain when bruised. Magic mushrooms gow on rotting wood or in soil rich in humus. Note that the common name refers to their hallucinogenic properties, these being inseparable from the poisonous ones.

Roll rim (*Paxillus involutus*). This toadstool is immediately distinguished by its brown cap with the margin rolled under, whilst the greenish or brown gills are produced down the upper part of the stem and the latter lacks a volva (membrane). The poisonous roll rim often grows with fly agaric in colder parts of the country, especially under birch (*Betula pendula*) trees.

3. External poisons—skin irritants

Individual reactions to external poisons vary enormously. Some people are immune while others are so susceptible that even gentle handling can produce an adverse reaction.

Agapanthus (*Agapanthus* species). The slimy sap can affect some people's skins, although generally only adults seem to be susceptible.

Amaryllids (*Amaryllis* species, especially A. belladonna, and including *Hippeastrum* species). They have the same sap features as agapanthus.

Garden primulas (*Primula* species, especially *P. malacoides* and *P. obconica*). Some people are susceptible to these plants and contact can cause intense skin irritation. The common garden weed, scarlet pimpernel (*Anagallis arvensis*), belongs to the primula family and has occasionally caused dermatitis when handled.

Giant hogweed (*Heracleum mantegazzianum*). A powerful skin irritant that affects susceptible people more noticeably in sunny weather. Found mainly in eastern South Island.

Ivy (*Hedera helix*). Sometimes causes skin irritation when handled

Japanese wax-tree [see wax-tree]

Nettles or stinging nettles (*Urtica* species). Three species are likely to be encountered - the first two are introduced and the third is native. Nettle or annual nettle (*U. urens*) is a common weed of gardens and waste places, especially where animals congregate. Perennial nettle (*U. dioica*) is much less common, but may grow in partly shaded places in the vicinity of buildings. The notorious giant native tree nettle or ongaonga (*U. ferox*) does not occur naturally in Auckland, although it is present north of the Waikato, as well as many areas to the south including the South Island. The stings can cause a numbing effect which lasts several days.

Parsnip (*Pastinaca sativa*). May cause rashes in susceptible people when leaves are rubbed against the skin.

Rue (*Ruta graveolus*). This small, very unpleasantly scented shrub is grown by people interested in herbs. It can cause skin irritation and even blistering when handled.

Smoke bushes (*Cotinus* species). Contact with sap in stems, shoots, and leaves can cause inflammation and irritation for susceptible people. Closely

related to *Toxicodendron* species, but not nearly as poisonous as them.

Spurges (*Euphorbia* species). The white sap can irritate skin; especially beware of caper spurge (*E. lathyris*). This plant has nothing to do with true edible capers.

Stinging nettles [see nettles]

Sumacs [see wax-tree]

Varnish tree [see wax-tree]

Wax-tree, Japanese wax tree or varnish tree

(Toxicodendron succedanea). Susceptible people suffer blistering and skin inflammation with great irritation, that can result in temporary hospitalisation, although other people are immune. Some other members of the family to which this plant belongs are notorious for causing severe skin irritation like the wax tree. Fortunately they rarely grow in New Zealand, eg. poison ivy (T. radicans), from North America and Chinese lacquer tree (T. vernicifluum) that like the wax tree is from China and long cultivated in Japan. Note: the species of Toxicodendron have often been included in the large genus Rhus, but the Rhus species rarely cause trouble, eg. in many parts of New Zealand staghorn sumac (*Rhus typhina*) is commonly grown. The family has many tropical members, some of which can cause severe skin disorders, but ripe fruits and seeds of mangoes and cashew nuts are quite safe to handle although the trees upon which they grow are not.

4. Common non-poisonous berried plants

Barberries (*Berberis* species). These have variously coloured berries according to the species. All barberries are thorny and the spines can penetrate the skin, snap off and lead to infection but the berries are not poisonous.

Brush cherry (*Syzygium australe*). The oblong crimson or purplish fruits of this small tree are commonly seen in northern urban areas and are quite harmless.

Coprosmas (*Coprosma* species). There are many native species, usually with orange or red berries.

Elaeagnus ($Elaeagnus \times reflexa$). The scaly orange berries of this large rambling shrub, or hedge plant, are edible and were used for preserves in the past.

English oak [see oak]

Firethorns (*Pyracantha* species). They have red, orange, or yellow berries and fierce spines, the latter being the only feature to worry about.

Flowering currant (*Ribes sanguineum*). The little black or blue-black berries are harmless. It is mainly grown in colder areas from the Volcanic Plateau southwards, and is often wild in some parts of the South Island.

Fuchsias (*Fuchsia* species). The soft berries of both native and introduced garden fuchsias are harmless and mostly edible.

Hawthorns (*Crataegus* species). Several species are grown, mostly with red or yellow-orange fruits, which can be used for jellies.

Holm oak [see oak]

Honeysuckles (Lonicera species, especially Japanese honeysuckle (L. japonica) and honeysuckle (L. × americana)). These popular climbers have fragrant flowers, which in L. japonica are followed by shining black berries. Other honeysuckles have orange or red berries. None are poisonous although if numbers are eaten stomach upsets may result.

Japanese quince [see japonica]

Japonica or **Japanese quince** (*Chaenomeles speciosa*). Like ordinary quince the fruits can be eaten, despite their forbidding dull-green appearance. Many people are needlessly afraid of them.

Laurustinus [see viburnums]

Lilly pilly [see monkey apple]

Monkey apple or lilly pilly (*Acmena smithii*). The little round mauve or white berries of this common garden and street tree are a familiar sight in the north and are harmless. It is a member of the non-poisonous mānuka or myrtle family.

Myrtle (*Myrtus communis*). Has black, aromatic

Myrtle (*Myrtus communis*). Has black, aromatic berries.

Oak or English oak (*Quercus robur*), and holm oak (*Q. Ilex*). These are the usual species grown in northern New Zealand and they fruit prolifically. A stomach-ache may result from eating too many acorns, but the fruits \(\frac{1}{2}\) in particular the mature acorns \(\frac{1}{2}\) are almost harmless, being regarded as "famine food" in Europe in former times. Likewise beech mast, the name applied to the seeds of European beech (*Fagus sylvatica*) is mentioned in

European books on poisonous plants along with oak acorns, but ingestion of its seeds is much more unlilkely. Again there would be either no ill effects or these would be very minor.

Rowan (*Sorbus aucuparia*). Rowan trees are mainly seen in colder parts from the Volcanic Plateau where they are common in the Rotorua and Taupo areas southwards through the South Island. The orange-red berries are produced in abundance.

Strawberry dogwood (*Dendrobenthamia capitata*). A small tree with large strawberry-like fruits. Often common except in the southern half of the South Island.

Strawberry tree (*Arbutus unedo*). The red and yellow fruits of this well known plant are sometimes eaten.

Viburnums (*Viburnum* species). *V. davidii* has deep blue berries and *V. japonicum* has bright crimson ones. Other species are grown, particularly further south, especially laurustinus (*V. tinus*) with blue-black berries and guelder rose (*V. opulus*) with red-orange ones. Although viburnum fruits often smell unpleasant, they do not seem to be poisonous. However, they can cause stomach upsets if many are eaten.

Written by W.R. Sykes, June 1991, Revised October 2002

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Warning: If you suspect a child has ingested parts of a poisonous plant, immediately contact the National Poisons Information Centre Urgent 24 Hour Phoneline on 0800 POISON (0800-764766).

For non-urgent information, call 03-479 1200.

If the child is displaying serious

symptoms of poisoning, treat as an emergency and dial 111 for an ambulance.

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Conium maculatum, hemlock

Plant Identification

These lists of poisonous and non-poisonous plants are meant to be used solely as a guide to their actual or possible toxicity. Thus they are not intended to be a manual for identification because there are no illustrations or detailed descriptions.

The brief notes about many of the plants listed are just for confirming the identity of those mostly common well-known plants. Further information can be obtained for nearly all these species mentioned by consulting the Flora of New Zealand series; volumes I to V.

Banned Plants

The lists do not contain any statements about weediness although amongst both the poisonous and non-poisonous plants mentioned there are a number of invasive species for which sale and distribution is restricted (or forbidden). Be that as it may, the criterion for inclusion is the belief that children are likely to or may well be tempted to have contact in some form (internally or externally) with these plants. The lists have been compiled as a result of researching New Zealand and overseas literature on poisonous plants, as well as from observations provided by many people. For those wanting more information about weediness status the following websites may be helpful:

Sites with lists of weeds

www.rnzih.org.nz/pages/weednameslist.htm

www.envbop.govt.nz/green/weeds.htm

Sites with weed warnings and information

www.landcare.org.nz/biodiversity/biodb_index.htm

www.maf.govt.nz/biosecurity/pests-diseases/plants/

www.protectnz.org.nz

For more information contact your local regional council or find their website at

www.localgovt.co.nz

This handout, and the *Safety in Preschool Centres* sheet, are available on our website.

www.landcareresearch.co.nz

Aconitum species - monkshood

Aesculus species - horse chestnuts
*Acmena smithii - monkey apple, lilly pilly

Acokanthera oppositifolia - bushman's poison

Agapanthus species - agapanthus

Agaricus species - edible mushrooms

Alectryon excelsus - titoki

Alocasia species - elephant's ear

Amanita muscaria - fly agaric

A. phalloides - death cap

Amaryllis species - amaryllids

Anagallis arvensis - [see garden primulas]

Araujia sericifera - moth plant, cruel plant

*Arbutus unedo - strawberry tree

Arum italicum - Italian arum

Asparagus officinalis - asparagus

Atropa bella-donna - [see black nightshade]

*Berberis species - barberries

Brugmansia candida - angel's trumpet

Catharanthus roseus - tropical periwinkle

Cestrum species - cestrums

*Chaenomeles speciosa - japonica, Japanese quince

Colocasia esculenta - taro

Conium maculatum - hemlock

Consolida species - larkspurs

Convallaria majalis - lily of the valley

*Coprosma species - coprosmas

Coriaria species - tutu

Corynocarpus laevigatus - karaka

Cotinus species - smoke bushes

Cotoneaster species - cotoneasters

*Crataegus species - hawthorns

Cytisus scoparius - broom

Daphne species - daphnes

Datura stramonium - thornapple, datura

Delphinium species - delphiniums

*Dendrobenthamia capitata - strawberry dogwood

Dianella nigra - tūrutu, blueberry lily

Dieffenbachia species - dumb canes

Digitalis purpurea - foxglove

*Elaeagnus × reflexa - elaeagnus

Euonymus europaeus - spindle tree

E. japonicus - Japanese spindle berry

Euphorbia species - spurges

E. pulcherrima - poinsettia

Fatsia japonica - fatsia

*Fuchsia species - fuchsias

Heracleum mantegazzianum - giant hogweed

Gloriosa superba - gloriosa lily

Gomphocarpus species - swan plants

Hedera helix - ivy

Helleborus species - hellebores

H. lividus subsp. corsicus - Corsican hellebore

H. niger - winter rose

Hippeastrum species - [see amaryllids]

Hypericum androsaemum - tutsan

Hypericum perforatum - **St John** swort [see tutsan]

Ilex aquifolium - holly, English holly

Ipomoea species - morning glories

Iris foetidissima - stinking iris

Laburnum anagyroides - laburnum

Lantana camara - lantana

Ligustrum species - privets

L. lucidum - [see **privets**]

L. ovalifolium - [see **privets**]

L. sinense - [see **privets**]

*Lonicera species - honeysuckles

Lupinus species - lupins

Lycium ferocissimum - boxthorn

*Macropiper excelsum - pepper bush [see pepper tree]

Mandevilla suaveolens - Chilean jasmine

Melia azederach - Persian lilac, white cedar

Myoporum species - ngaio

*Myrtus communis - myrtle

Nerium oleander - oleander

Nicandra physalodes - apple of Peru

Papaver nudicaule - Iceland poppy

P. somniferum - opium poppy

Pastinaca sativa - parsnip

Phytolacca octandra - inkweed

Pieris species - lily of the valley shrubs

Primula species - garden primulas

Prunus dulcis - almond, bitter almond & sweet almond

P. laurocerasus - cherry laurel

P. persica - peach

Pseudopanax arboreus - five finger

* Pyracantha species – firethorns

*Quercus ilex – holm oak [see oak]

*Q. robur - oak, English oak

Ranunculus sceleratus - celery-leaved buttercup

Rheum rhababarum - rhubarb

Rhododendron species & varieties - rhododendrons

R. arboreum - [see **rhododendrons**]

Rhus. typhina - [see wax-tree]

*Ribes sanguineum - flowering currant

Ricinus communis - castor oil plant

Sambucus nigra - elderberry, elder

Schinus molle - pepper tree

Solanum species – inc. species commonly called **nightshades**

S. aviculare - poroporo

S. dulcamara - bittersweet

S. laciniatum - poroporo

S. linnaeanum - apple of Sodom

S. mauritianum - woolly nightshade

S. nigrum - black nightshade

S. physalifolium - hairy nightshade

S. pseudocapsicum - Jerusalem cherry

S. tuberosum - potato

Sophora species - kōwhai

*Sorbus aucuparia - rowan

Symphoricarpos albus – **snowberry bush**

Synphytum officinale - comfrey

 $S. \times uplandicum - comfrey$

*Syzygium australe - brush cherry

*Taraxacum species - [see under spurges]

Taxus baccata - vew

Toxicodendron radicans – poison ivy [see wax tree]

T. succedaneum – wax tree. Japanese wax tree, varnish tree

T. vernicifluum – Chinese lacquer tree [see wax tree]

Urtica species - nettles, stinging nettles

*Viburnum species - viburnums

Vinca rosea - [see tropical periwinkle]

Wisteria species - wisteria

Zantedeschia aethiopica - arum lily