

Appendix 1A  
Exclusion Pest Plant Information Sheets

# Coltsfoot

## Botanical Name

*Tussilago farfara*

## Family

Asteraceae

## Also known as

Coughwort, dovedock, horse-hoof, clayweed, ginger root

## Where is it originally from?

Europe and Asia



## What does it look like?

Low-growing, mat-forming, summer-green perennial herb with stout rootstock and rhizomes. Shallowly-lobed kidney-shaped to round, or heart-shaped leaves (3-20 cm diameter) with finely toothed edges at the base of the plant are hairless above, woolly below, and on long hairy stalks. Erect flowering stem (5-30 cm tall) has 10 or more oval to triangular leaves (up to 1 cm long). Single yellow daisy-like flowers (6-10mm diameter) at top of stem appear in October before leaves and are followed by hairy seed capsules (3-5 mm long). Plant dies back to rootstock over winter.

## Are there any similar species?

Winter heliotrope (*Petasites fragrans*) has pink-purple flowers and non-lobed leaves with large-toothed edges.

## Why is it a pest?

Matures and grows quickly, and has fast spreading rhizomes and a persistent rootstock. Produces very many, very well dispersed seeds. Tolerates very wet to occasionally dry conditions, moderate to cool temperatures, semi-shade, and damage.

## How does it spread?

Seed spread by wind, and rhizomes by soil and water movement.

## What damage does it do?

Forms dense mats in damp, disturbed sites, excluding other species.

## Which habitats is it likely to invade?

Short tussock, wetland, and bare land.

## What can I do to get rid of it?

1. Dig out very small patches (all year round). Dispose of at refuse transfer station or burn.

2. Weed wipe (spring-summer): glyphosate (333ml/L) + penetrant or metsulfuron-methyl 600g/kg (1g/L) + penetrant.
3. Spray (spring-summer): glyphosate (10ml/L) + penetrant or metsulfuron-methyl 600g/kg (1g/10L) + penetrant.

**What can I do to stop it coming back?**

Rootstock and rhizomes resprout so follow up 3 monthly until eradicated. Densely replant where appropriate to prevent reseeding.





# Smilax

## Botanical Name

*Asparagus asparagoides*

## Family

Liliaceae family

## Also known as

Bridal creeper, *Asparagus praecox*, *Asparagus medeoloides*, *Myrsiphyllum asparagoides*

## Where is it originally from?

South Africa



## What does it look like?

Scrambling or twining perennial with dense clusters of white, fleshy, tuberous roots and twisted, thin, wiry, branched green stems to 3m. Ovalish, pointed leaves (10-35 x 4-15 mm) with 7 veins, one of which appears at each node, are actually cladodes (flattened leaf-like stems). Greenish-white flowers (5-6 mm) appear from July to August, followed by round red berries (6-10 mm) each containing 2-8 tiny black seeds.

## Are there any similar species?

Large leaf-like cladodes distinguish smilax from other *Asparagus* species.

## Why is it a pest?

Has a moderate growth rate, tough, long-lived tubers resprout at will, and the plentiful seeds are distributed widely. Tolerates moderate shade to full sun, low to moderate rainfall, salt and wind, but prefers good drainage.

## How does it spread?

Birds spread the seeds. Tubers resprout and are spread by soil and water movement. Common sources include roadsides, hedgerows and wastelands.

## What damage does it do?

Forms dense patches and smothers low growing plants and seedlings, usually in low canopy habitats. Can eliminate vulnerable native coastal species.

## Which habitats is it likely to invade?

Poor or volcanic soils, bare rock, sand, coastal and estuarine zone, bluffs, rocks, gumland, pohutukawa forest, and inshore islands.

### What can I do to get rid of it?

1. Dig out tubers. Dispose of them at a refuse transfer station or burn them. Leave on site to rot down.
2. Weed wipe (spring-early summer only): glyphosate (333ml /L), no penetrant.
3. Spray (spring-early summer only): glyphosate (20ml /L + penetrant). Do not add penetrant when spraying against tree trunks. Spray lightly, avoiding runoff.

### What can I do to stop it coming back?

Tubers resprout after spraying, stems break at ground level so plants cannot be pulled out. Grubbing tubers can expose soil, allowing seeds to germinate. Always follow up on treated areas at least 6-monthly. Seeds probably not long-lived. Replant treated areas where possible after 2-3 treatments to establish dense ground cover and minimise reinvasion.





# Spartina

## Botanical Name

*Spartina anglica*, *S. alterniflora*

## Family

Poaceae family

## Also known as

American spartina, hybrid spartina, cord grass

## Where is it originally from?

North America, England

## What does it look like?

Perennial, clump-forming grass to 1 m with rhizomes and fibrous roots and erect stems (4-9 mm diameter) with many brownish leaf sheaths. Alternate leaves (5-45 x 4-15 mm) are deeply wide-ribbed on upper surface and have ligules (1-3 mm long). Seedheads are occasionally seen, and seed is occasionally produced at some sites.



## Are there any similar species?

Spartina is the only grass species found in the inter-tidal zone apart from the small native non-grass *Zostera*. Tall fescue, couch and other grass species are similar to spartina but none of these are found in the intertidal zone.

## Why is it a pest?

Colonises the bare inter-tidal zone where it forms dense clumps and traps sediment. Tolerates all weathers and temperatures, fire, grazing, and other damage. Rhizomes spread slowly and broken fragments resprout easily.

## How does it spread?

Livestock, propellers, nets and so on dislodge rhizome fragments, which are then spread by tidal and current movement. Also spread through intentional planting. Can survive long-term at sea, which means that it can travel long distances with the currents.

## What damage does it do?

Traps sediment, raising the level of the ground above the high tide mark and destroying the inter-tidal zone and habitat. Other weedy grasses succeed spartina, creating dry 'meadows'. It can reduce large estuaries and shallow harbours to thin drains surrounded by rough pasture, resulting in an immense loss of biodiversity.

**Which habitats is it likely to invade?**

Estuaries, mangroves and other intertidal zones with soft sediment.

**What can I do to get rid of it?**

Spartina is controlled by the Department of Conservation - contact your local office for more information.



# Tree Privet

## Botanical Name

*Ligustrum lucidum*

## Family

Oleaceae family

## Also known as

Japanese privet, broadleaf privet

## Where is it originally from?

Temperate and tropical regions, China



## What does it look like?

Small-to-large evergreen, hairless tree to 15+ m (sometimes a dense shrub) with distinctive lumpy warts on the stems. Dark green leaves (5-13 x 3-6 cm) are glossy on the top surface and arranged in opposite pairs on the stems. Tiny fragrant, creamy flowers make up flowerheads (25 x 20 cm) produced from November to March and are followed by bluish or purplish-black berry-like fruit (6 x 5 mm) coated with a powdery 'bloom'.

## Are there any similar species?

Camphor laurel and native *Nestegis* species (maire) are similar.

## Why is it a pest?

Produces many highly-viable seeds in widely-dispersed berries. Fast-growing, very long-lived (100 years +) and forms very dense, tall stands. Very tolerant of shade, frost, damage, grazing, all well-drained soil types, high to moderate temperatures, damp or drought conditions, salt and wind.

## How does it spread?

Birds, vegetation dumping and soil movement all spread seeds. Common seed sources are roadsides, farm and urban hedges, gardens and wasteland.

## What damage does it do?

Forms dense carpet of seedlings on forest floor, and grows through understorey to dominate and replace canopy trees in most forest types. Poisonous berries may possibly impact on native fauna, especially insects.

## Which habitats is it likely to invade?

Most coastal and lowland forest types (intact and disturbed), shrublands, fernland, cliffs, and coastline.



### What can I do to get rid of it?

1. Pull or dig seedlings (all year round). Leave on site to rot down.
2. Cut and paint stump (within 15 minutes of cutting): glyphosate (200ml/L) or metsulfuron-methyl 600g/kg (5g/L + penetrant) or Tordon Brushkiller (200ml/L)
3. Frilling: make deep cuts into the sapwood at regular intervals around the base of the tree, taking care not to ring-bark the plant, immediately saturate the cuts with metsulfuron-methyl 600 g/kg (5g/10L + penetrant) or undiluted Tordon Brushkiller.
4. Injection method: Drill sloping holes into the sapwood at regular intervals around the tree, immediately saturate with metsulfuron-methyl 600 g/kg (5g/10L + penetrant) or undiluted Tordon Brushkiller.
5. Spray (spring-autumn): metsulfuron-methyl 600g/kg (5g/10L + penetrant).

### What can I do to stop it coming back?

Untreated stumps resprout. Reseeds profusely in bared areas. Follow up 6-monthly, easiest to spot during spring flowering. Don't replant until seedling regrowth ceases, as privet will grow through groundcover.



# White Edged Nightshade

## Botanical Name

*Solanum marginatum*

## Family

Solanaceae

## Where is it originally from?

North Africa

## What does it look like?

White Edged Nightshade is a perennial shrub which grows to 5m. It is easily recognisable by its leaves, which are chalky-white on the undersides and also on the veins and margins of the upper leaf. The stems are clothed in white felt-like hairs with long yellow prickles while the leaves have long prickles along the lines of the veins. The plant has white flowers, sometimes with purple veins which bloom in clusters of 2-10 at the ends of the branches. These are followed by formation of large berries which change from green to yellow as they ripen. The fruit resemble small tomatoes. Plants are spread mostly by soil and water movement as birds do not generally like the fruit.



## Why is it a pest?

White Edged Nightshade is considered a pest plant because it has the capacity to form dense stands in wasteland areas (roadsides, bush margins, scrub and poor pasture land), which receive warm sun and good rainfall. The dense thickets displace pasture and can become impenetrable for both humans and stock. The plant is toxic and people have become ill after tasting the fruit.

## How does it spread?

Stock, water, movement of machinery and feral animals all help spread the seeds which appear to have a long soil life.

## What damage does it do?

The dense thickets displace pasture and can become impenetrable for both humans and stock. The plant is toxic and people have become ill after tasting the fruit.

## Which habitats is it likely to invade?

Roadsides, bush margins, scrub and poor pasture land.



### What can I do to get rid of it?

1. Pull or dig seedlings (all year round). Leave on site to rot down.
2. Cut and paint stump (within 15 minutes of cutting): glyphosate (200ml/L) or metsulfuron-methyl 600g/kg (5g/L + penetrant) or Tordon Brushkiller (200ml/L)
3. Spray with glysophate based products such as Roundup or triclopr/picloram based products such as Tordon NF or Grazon. Suggested mixes are: 1. Tordon Brushkiller, 60ml/10L water 2. Tordon Gold, 120mls/10L water).

