

The Plantain Weeds in Turf

Botanical Names

Plantago lanceolata
Plantago major

Common Names

Ribwort
Greater Plantain
Buckhorn
Lamb's Tongue

Family



Plantago major



Plantago lanceolata

The plantains belong to the Plantaginaceae family. There are over 20 species of Plantains growing within Australia.

Origin and Distribution in Australia

The economically important species are native to Europe. There are native species of Plantain in Australia however. *Plantago lanceolata* and *Plantago major* are widespread in Australia. In 1977 these species were reported as a weed in more than 50 countries in 26 crops.

Identification

- Both of these species have a rosette growth habit.
- They possess several distinct, parallel ribs traveling along the foliage length.
- When a leaf is mown the veins appear 'stringy'.
- Flowers are a dense, terminal spike 1-7cm in length and green brown in colour.
- They do not form distinct tap roots, with a mass of adventitious roots occurring instead.

Difference between *Plantago lanceolata* and *Plantago major*

- *Plantago lanceolata* leaves tend to be narrower than those of *Plantago major*.
- *Plantago major* leaves become much narrower near the base to form a "stalk". This change in width is much less pronounced in *Plantago lanceolata*.
- The *Plantago lanceolata* seed head is clustered at the end of the stalk. *Plantago major's* on the other hand appear much further down on the stalk.

Look Alikes

- The seedling of *Plantago lanceolata* can be mistaken for wireweed.

Reproduction

- Seed germination is the principal means of reproduction for both species. This usually occurs in autumn. *Plantago lanceolata* however can produce a rhizome from which new plants develop.
- Seeds of Plantains have remained viable for over 60 years.

Habitat

- Found commonly in commercial turf, lawns, along roadsides and in moist disturbed open areas.
- Plantains tolerate low fertility soils and have been found to be invasive at a pH as low as 5.

Growth Cycle / Ecology

- Plantain is primarily an autumn winter growing perennial.
- Can act as an annual or biennial in low rainfall areas with research suggesting that they can complete a full life cycle in as little as 6 weeks.
- Flowering occurs midspring into early summer.

Herbicidal Control Options

Post-emergent Options– Applications of 2,4-D and 2,4-D mixtures with Dicamba and MCPA have provided good control of Plantains in the past. Repeat applications are required for mature weeds and it is important to target the weed in its early stages of development.

| Herbicide | Active Ingredient and Loading | Comments | Rate |
|----------------------------------|---|---|---------------|
| Millennium | 350g/L 2,4-D 45g/L Clopyralid 45g/L Dicamba | A broadleaf weed herbicide that delivers outstanding efficacy from three powerful systemic active ingredients that combine rapid response with overall effectiveness. | 3.5 – 4.5L/Ha |
| MCPA Diclo Spearhead | 300g/L MCPA 20g/L Clopyralid 15g/L Diflufenican | Provides outstanding control of the major broadleaf weeds in turf. Contains a unique three way mixture in a low odour formulation. | 5L/Ha |
| Dicamba M | 80g/L Dicamba 340g/LMCPA | Broad spectrum selective herbicide that offers dependable control of Clovers and a wide range of broadleaf weeds in most turf situations. Registered for use in green situations. | 6.5/Ha |
| Triple Shot Broadside | 280g/L MCPA 140g/L Bromoxynil 40g/L Dicamba | A three way combination to give broad spectrum control of broadleaf weeds. Fast acting & economical for large areas. | 4-5L/Ha |