

## WEED FILE: REDROOT

REVISED: OCTOBER 2016



*Amaranthus powellii*

### DESCRIPTION

There are three closely related plants that are all called redroot, and the most common is *Amaranthus powellii*. The others are *A. retroflexus* and *A. hybrids*. And there's a fourth that's commonly called purple amaranth. For control purposes they can all be considered together, but this Weed File will concentrate on describing the most common of them, which is most widely called redroot, or sometimes called Prince of Wales feather.

Redroot is a summer growing annual weed. It dies off with the autumn frosts. The plant is very leafy and grows quite tall; up to 1 metre in height in good conditions, although much less in poor sites.

The leaves are variable in size (2-10cm), and are oval shaped. They are hairy on the under surface. Generally the leaves are green in colour, but they very often turn pink/red in autumn.

Stems are erect, and reddish in colour, especially lower down on the plant. The stems form numerous short, leafy lateral branches. These laterals remain short when the redroot is growing in a standing crop, but spread in situations where the redroot plant is isolated.

The flowers are green and quite small, growing in spikes with many short laterals. The flowers appear in the December to February period.

The fruit is formed in seed heads that can be up to 200mm long and droop from the stems. The seeds themselves are small, black to dark brown, and shiny.

The plant has, not surprisingly, a fleshy red taproot.

### HABITAT

Redroot appears throughout New Zealand, but prefers warmer conditions than do

many other summer annual weeds, which means it is usually most troublesome in the North Island.

It appears often in waste places and in cultivated ground, and is a particularly common unwelcome guest in crops including maize. In that situation redroot forms quite dense patches of erect plants, making it a very competitive crop invader. It does also appear in pastures, again often in dense stands.

### HERBICIDE CONTROL

Redroot is readily controlled by most of the common herbicides, so the choice of what to use is really a matter of the situation in which the redroot is growing.

#### Cereal Crops

- **MCPA 750** at 1.5L/Ha in 200-300L water, boom sprayed when the weed is young and active, and when the cereal crop is between 5 leaf and jointing.

For linseed and grass seed crops, use **MCPA 750** as above, but at just 0.75-1L/Ha, and when the weed is as young as possible and actively growing.

#### Pasture

Graze treatment area to expose weeds and reduce clover leaf. Then leave for a week before spraying to freshen up.

- **2,4-D Granules** at 1-1.5kg/ha (seedlings) or 1.5-2kg/ha (small rosettes).
- **MCPA 750** at 1.5L/Ha in 200-300L water on actively growing redroot seedlings at the 4-6-leaf stage.
- **Decision** at 50g/Ha (clover-friendly).

Note that 2,4-D and MCPA 750 will suppress clover in pasture.

#### Spot Spraying

- **GrassMate** at 6ml/L of water used in a knapsack or other hand sprayer.

