Weeds or indicator plants?

by Gill Fry

I have put together this article in response to our members requesting information about plant indicators from the last Maarten Stapper event.

The definition of a weed is a plant that is growing in a place where it is not wanted.

But when is a weed, really a weed?

There seems to be two views on this. One view is that in a grazing operation there should just be a determined sown mix of plants and all other varieties of plants, including native plants, are undesirable.

The other view is that a variety of plants, including those not directly planted, is not only beneficial to soil but also to animal health. This is because weeds help provide groundcover and the different root structures help to break up the soil improving drainage and soil structure. The different plants provide a smorgasbord of food which helps meet the needs of the animal.

Mineral source

The following plants can provide vital minerals to stock, your compost heap or liquid tea:

Chicory - Iron, Calcium, Copper

Clovers - Iodine, Calcium, Copper, Silica, Sodium

Comfrey - Iron, Chlorine, Potassium, Sodium

Dandelion - Calcium, Copper, Iron, Magnesium, Potassium, Silica

Dock - Iron

Duckweed - Copper, Boron, Zinc, Phosphorus

Fennel - Copper, Potassium, Sodium, Sulphur

Inkweed - Potassium

Nettles - Iron, Potassium, Sodium, Sulphur

Plantain - Calcium, Sulphur, Potassium

Ragwort - Copper

Sorrel - Calcium, Phosphorus

Thistles - Nitrogen, Copper, Silica

Source: Newsleaf, Journal of Biodynamic Agriculture Australia, No. 60, p.6

Thistle

Stinging nettle

Capeweed

Dock

Indicator plants

One other benefit of looking at what is growing in your paddock is that some plants are 'indicator plants'. What I mean by this is that some plants only grow in certain soil conditions, so they are telling you by their presence that those soil conditions exist.

For example; most people will know that when soil is waterlogged, rushes and sedge grow prolifically.

In my search for further information I found that the information on plant indicator species is poorly documented. In preparing the list of plants in the following table, numerous sources, some reliable and some undoubtedly less reliable, were reviewed. Consequently, the following information should be used as a basis for further observation and research rather than as a guarantee of what to expect from a soil.

I am not advocating that all weeds be encouraged, as even "beneficial" weeds poorly managed, will reduce yield and some in excess can cause stock health problems. I am also not suggesting that pasture not be 'improved'.

What I am suggesting is that by initially being able to identify the weeds on our land and know what their presence indicates, we will be in a better position to manage our soils wisely.

Plant (common name)	*Indicates the presence of....*
Bracken	acid soils, low potassium, low phosphorus
Capeweed	low fertility, acid soils, excess nitrogen
Chickweed	high fertility
Chicory	high fertility
Dock	acid soil
Onion grass	low fertility, acid soils
Patterson's curse	calcium and copper deficiency
Stinging nettles	acid soil,
Sorrel	acid soil
Thistle	dry soil, soil compaction
Yarrow	low potassium

Note there are some weeds that are weeds of national significance (WONS). These weeds spread at an alarming rate and the law dictates that you need to take action to eradicate these weeds or you could be fined.

Examples of such weeds are ;

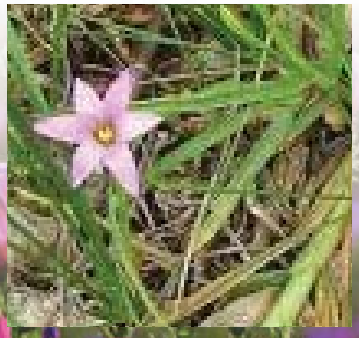
- Gorse
- Boxthorn
- Chilean needle grass
- Serrated tussock
- Broomes
- Blackberry
- Bridal creeper

For further information on WONS, go to http://www.weeds.org.au/WoNS/

Pattersons curse

Yarrow

Bracken



Onion grass