Skeleton weed in Western Australia
August 2019

Skeleton weed (*Chondrilla juncea*) is a declared pest in Western Australia. It can reduce grain crop yields by competing for moisture and nutrients, mainly nitrogen. A comprehensive management program supports participant growers through a voluntary funding scheme.

**Declaration categories**

All landholders need to prevent the movement of seed and/or root fragments from their properties in produce (grain, seed and hay), wool, machinery and vehicles.

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<th>Declaration categories</th>
<th>Management implications</th>
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| **C2** whole of the State except Narembeen and Yilgarn | • eradicate infestations; destroy plants and prevent propagation each year until no plants remain  
• prevent the spread of seed or plant parts  
• summer search is required  
• winter control is required. |
| **C3** Narembeen and Yilgarn | • manage infestations to prevent the spread of seed or plant parts  
• summer search is required  
• treat plants to prevent seed set  
• winter control is required to receive search assistance. |
Description

Skeleton weed (Chondrilla juncea L.) is a perennial plant that develops from a rosette into a sparsely-leafed, erect plant of up to 1 metre tall. Erect, branched stems, with little or no foliage, are produced in early October, giving the plant an untidy look.

The rosette has hairless, deeply-lobed leaves with the lobes always pointing backwards, similar to the rosette formed by the English dandelion (Taraxacum officinale).

Mature plants have an extensive root system. The tap root can be over 2m long and the lateral roots can radiate up to 50cm from the main taproot.

The stems are upright and hairless apart from some stiff bristles right at the base. The stems are leafless or have only small leaves, giving the appearance of the skeleton of a plant. The roots, stems and leaves exude a white latex when cut.

Salient features of skeleton weed plants

- Seeds have fluffy white parachutes
- Yellow, daisy-like flowers at the end of stems appear singly or in small clusters
- Wiry, tangled branches
- May present small, narrow and elongated leaves
- Short stiff bristles at base of stem
- Rosettes may be isolated or in clusters, and less evident in summer
- Hairless leaves have backward pointing lobes
- Skeleton weed rosette and tap root
- Chondrilla juncea root system (source: Pagès et al. 2004)
Skeleton weed has yellow daisy-like flowers about 20 millimetres across and usually flowers from December until May (though it has been found flowering in July in Perth). The seeds are about 3-4mm long with a parachute to aid wind dispersal.

A healthy, mature plant produces 10,000 to 20,000 seeds, which catch on wool, hair or fur. Skeleton weed rosette leaves can vary in size and shape. There are currently three known Australian skeleton weed biotypes, referred to as narrow-leaf, intermediate and broadleaf. Research indicates that different biotypes may respond show varying responses to herbicides.

**How it spreads**

Lateral root fragments as small as 5-10mm can generate new plants. These fragments are usually dragged by farm machinery during cultivation. As seeds rarely survive more than 12 months under field conditions, there is no long-term seed bank. Seeds are fragile and susceptible to mould and bacteria, and predation by insects and birds.

**Where to find it**

Skeleton weed is most likely to be found in pasture and grain paddocks at harvest time. It can occur in different locations such as roadsides, railway lines, on industrial land and around ports. It is occasionally found in bushland and lawns.

Skeleton weed has been found in the South-West Land Division, on farms in a number of wheatbelt shires, in the Perth metropolitan area, Fremantle and further south as far as Albany.

**The Skeleton Weed Program**

The Skeleton Weed Program is a coordinated approach to managing skeleton weed in Western Australia. The program is delivered by the Department of Primary Industries and Regional Development (DPIRD) under a service delivery arrangement with the Grains, Seeds and Hay Industry Management Committee, appointed by the Minister for Agriculture in June 2010. The committee was re-appointed in June 2019 under the Biosecurity and Agriculture Management Industry Funding Schemes.
(Grains) Regulations 2010 to manage pests affecting the grains industry (currently skeleton weed and three-horned bedstraw).

Services provided by the program are only available to landholders who contribute to the Grains Industry Funding Scheme through the sale of grain, seed or hay. The funding scheme is voluntary and growers can choose to “opt-out” (making them non contributors). However, if they have skeleton weed they are still required to meet their obligations under the program, at their cost.

The program’s strategies include:
- improving landholders’ ability to find, report and eradicate skeleton weed
- advising on management techniques
- encouraging local grower groups, known as Local Action Groups, to participate in cooperative surveillance, reporting, management and eradication from their local areas
- incentives including search assistance and winter treatments (where landholders are compliant with program requirements).

Further information
More information on skeleton weed and the Skeleton Weed Program is available by visiting: agric.wa.gov.au/skeletonweed

Report skeleton weed finds
Wheatbelt and rural WA – to your nearest department or Local Action Group office.
Metropolitan areas – to DPIRD through:
- MyPestGuide reporter app or web tool mypestguide.agric.wa.gov.au
  - select ‘Send report: MyWeedWatcher’
- Pest and Disease Information Service (PaDIS) (0)8 9368 3080 or padis@dpird.wa.gov.au

Skeleton weed is most recognisable when flowering in summer and autumn

Flowers, bud and seeds forming on stalks

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