

Agriculture Protection Board
Advisory Leaflet No. 119 (replaces 57)
July 1986
Agdex No. 647

SKELETON WEED



1. Mature plant 2. Rosette 3. Flower 4. Seeds

(Continued overleaf)

SKELETON WEED

Skeleton weed (*Chondrilla juncea* L.) is a member of the Compositae (daisy family). There are three morphological forms of the plant – a narrow, an intermediate and a broad-leafed form, but only the narrow and broad-leafed forms are known to be present in W.A.

Skeleton weed is a native of southern and central Europe, but has spread to America and Australia. However, only in Australia has it become a major weed problem. Large areas of eastern Australia are infested and periodic outbreaks have been recorded in Western Australia since 1963.

Skeleton weed is a declared plant Category P2 (eradication) throughout Western Australia.

Significance:

Skeleton weed infests many thousands of hectares of the New South Wales, South Australian and Victorian wheatbelts. It drastically reduces cereal yields by competing for water and nutrients, mainly nitrogen; its tough wiry stems impede harvesting.

Many years of research have failed to provide an effective, economical herbicide for control of skeleton weed in crops.

Although the narrow-leaf form is controlled in most circumstances by several biological control agents in eastern Australia, no agents are available to attack the broad-leafed form.

In Western Australia it is hoped

to eradicate skeleton weed, so biological control is only of value to W.A. by reducing the plant population in southern and eastern Australia. This will hopefully restrict the number of seeds, entering the state.

Description:

Skeleton weed has hairless rosette leaves with turned-back barb-like lobes. The leaves are green, often tinged with reddish brown under moisture stress. The rosette leaves die off in the summer.

Skeleton weed is often confused with Flatweed (*Hyprochoeris* spp.) at the rosette stage. It may be distinguished by the shape of the leaf lobes and absence of leaf hairs.

The stems develop from the rosette in November and December.

They are tough, wiry and many-branched, growing up to one metre in height. They are leafless or almost so and hairless except for some short stiff bristles near the base.

The stems give skeleton weed its name.

The flowers are bright yellow, daisy-like and about 2cm across. They are formed singly or in small groups near the ends of the branches.

Flowering may take place from December to May. Each flower produces 11 seeds. These are about 5mm long with a pappus (parachute) attachment. Each seed has small teeth which helps it cling to rough surfaces. Skeleton weed has a tap

root which can extend many metres deep with many lateral branches. The root tapers very little down the soil profile.

Both stem and root exude a sticky white sap when broken.

Ecology:

Skeleton weed is a perennial plant with a deep tap root enabling it to survive droughts. The lack of rainfall during W.A.'s dry summers generally does not lead to reductions in either seed numbers or viability. Up to 20000 seeds can be produced by each mature plant.

The seeds have little dormancy and germinate whenever significant rainfall occurs. Seeds are spread by wind or on clothes, vehicles or stock. No seeds remain viable for more than one year.

Skeleton weed is also spread by regeneration from root fragments disturbed by cultivation. New plants may arise from root fragments as small as one centimetre in length and from depths as great as 1.2 metres.

Climatic analyses have indicated that virtually the entire W.A. wheatbelt is prone to invasion by skeleton weed. It is imperative that skeleton weed is not allowed to establish itself in W.A.

If you find a plant which might be Skeleton weed, contact the Agriculture Protection Board, Baron-Hay Court, South Perth, 6151, telephone (09) 368 3333 or any country office of the Agriculture Protection Board or Department of Agriculture.