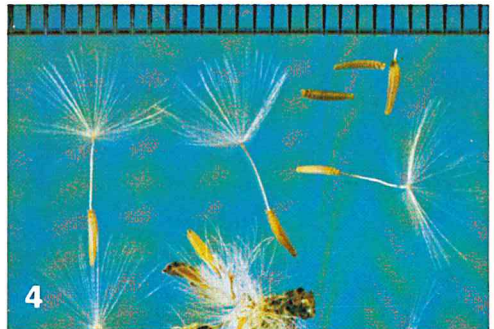
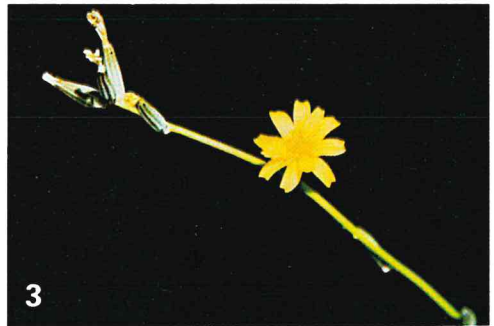


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SKELETON WEED



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.

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 wheatbelt. It drastically reduces cereal yields by competing for water and nutrients, mainly nitrogen; its tough wiry stems impede harvesting. Attempts at biological control using a rust fungus (*Puccinia chondrilla*), a gall mite (*Aceria chondrilla*) and a gall midge (*Cystiphora schmidtii*) have been partially successful in eastern Australia. The narrow leafed form is attacked by all three organisms but only the gall midge attacks the intermediate and broad leafed forms. The latter, resistant, forms are present in WA as well as the narrow leafed forms.

Biological control may reduce but can never eradicate Skeleton weed. Small populations must survive to enable the control agent to continue. In Western Australia it is hoped to eradicate Skeleton weed, so biological control is only of value to Western Australia by reducing the plant population in southern and eastern Australia which will hopefully restrict the number of seeds entering WA.

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.

The tough wiry stems, which give Skeleton weed its name, are leafless or almost so. A stem develops from the rosette in late spring/early summer, forming a branched thicket up to 1 m high. The stems are hairless except for some short stiff bristles near the base.

The flowers are bright yellow, daisy like and about 2 cm across. They are formed singly or in small groups near the ends of the branches. Flowering may take place from December to March if moisture is adequate.

Each flower produces 9 to 15 seeds which are about 5 mm long with a pappus (parachute) attachment. Each seed has small teeth which helps it cling to rough surfaces. Skeleton weed has a taproot which

can be 2 metres or more 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. Skeleton weed is often confused with Flatweed (*Hypochoeris* spp) at the rosette stage. It may be distinguished by the shape of the leaf lobes and absence of leaf hairs.

Ecology:

Skeleton weed is a perennial plant with a deep tap root enabling it to survive droughts. It may be spread by regeneration from root fragments disturbed by cultivation. New plants may regenerate from root fragments buried up to 1.5 m deep. Roots may remain dormant for several years. Up to 15 000 seeds can be produced by each mature plant.

Seeds may be spread by wind or on clothes, vehicles and stock. Drought stress at flowering reduces seed viability. The seeds appear to have little dormancy and germinate whenever sufficient rainfall occurs. Very few, if any, seeds remain viable for more than one year. It is imperative that Skeleton weed is not allowed to establish itself in WA.

If you find a plant which might be Skeleton weed, contact the Agriculture Protection Board, Jarrah Road, South Perth, telephone (09) 367 0111 or any country officer of the Agriculture Protection Board or Department of Agriculture.