Weeds of Western Australia - Paddy melon (Cucumis myriocarpus Naud.)

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During the summer, rock melons and water melons are popular, but several members of the same family of plants have proved troublesome weeds. Paddy melon and Afghan melon occur freely in a number of districts, particularly on fallow and in moist depressions.
The mention of melons brings to mind the many edible types that are cultivated, both for stock food and human consumption. The pig or pie melon is often fed to animals, and is also used for the making of jam, while the related water melon and the smaller rock or musk melon are popular and palatable summer fruits.

The melon group, however, is not an entirely unmixed blessing and several species have become troublesome weeds, besides having some harmful properties. A small variety of the common pie melon has become gregarious, especially in the Meenar and Grass Valley districts, where it occurs mainly on fallowed land. In that area it is known as wild or Afghan melon and is stated to have been introduced by Afghans about 50 years ago. The fruit resembles a miniature pie melon, being 3 to 5 in. in diameter. It is an annual vine, growing in the spring and summer.

The Colycinth melon, a plant very similar in appearance, was recorded at Townsville, Queensland in 1926, and some 20 years later in South Australia. So far it has not been found in this State. The Colycinth has a fruit similar in size to the Afghan melon, but has more conspicuous pale markings on the rind. It also differs in being a perennial, the taproot being hard, woody and conspicuous, 2 to 6 in. in diameter, and often more than 3 ft. in length.

Sheep are reported to eat the fruits of both the Afghan and Colycinth melons, when more attractive forage is not available, and no doubt both plants are spread in this manner. When eaten in quantity, the Colycinth is said to be poisonous, and the dried pulp of the fruit is known to have a purgative action. On occasions the Afghan melon has also been suspected of having toxic properties.

A third member of the melon group which must be classed as a weed in Australia, is the Paddy Melon (Cucumis myriocarpus), a plant which is more closely related to the cucumber than the pie melon. It is native to South Africa but is now established in Queensland, New South Wales, Victoria, South Australia and Western Australia. In this State it has been recorded from various localities, including Walkaway, Walgoolan, Pinjarra, Bridgetown and Dwellingup, and as with the Afghan melon, is most vigorous on soils which are moist during the summer, showing a preference for fallowed land.

DESCRIPTION

Paddy Melon is a prostrate annual herb with slender, rough stems. The ovate cordate leaves are 1 to 2½ in. long, with five rounded, toothed lobes, the middle one being the longest. They are almost hairless above, but rough and hairy below, with a stout rough stalk about as long as the blade. The male flowers are in clusters of 2-4 on short, slender stalks in the axils of the leaves. The female flowers are formed singly or two together, the ovary having rather distant bristles. The fruit is nearly globular, about one inch in diameter,
PADDY MELON
(Cucumis myriocarpus Naud.)
Showing growth habit of plant, also single fruit and cross-section of fruit showing seeds
(From a drawing by C. A. Gardner, Government Botanist)
covered with long soft bristles and marked with longitudinal stripes, dark green at first, but finally yellow. The seeds are oblong, pale yellow and up to one sixth of an inch in length.

**SIGNIFICANCE**

Besides being a keen competitor for summer crops, Paddy Melon has other undesirable features, mainly associated with its effect on stock. On a number of occasions, particularly in New South Wales, losses of horses, sheep and cattle have been attributed to eating the melons. The plant is suspected of causing blindness in horses but, from time to time, other classes of stock presumably have been affected. With feeding tests the material has proved unpalatable and no positive results have been obtained. Paddy Melon has not been incriminated as a cause of poisoning in Western Australia and it would appear that there is no substantial risk unless this plant is eaten in considerable quantity.

**FOOTROT**

Encouraging results in the control of footrot in sheep had been obtained during the current season, said the Chief Veterinary Surgeon of the Department of Agriculture, (Mr. C. R. Toop) recently.

There are at present only 28 flocks in Western Australia under footrot quarantine restrictions and ten of these, on which the slaughter of affected sheep is pending, are expected to be released within the next few weeks. Most of the remainder are small flocks which should not present any serious difficulties in achieving eradication.

The Geraldton district was freed from footrot about four years ago and has remained free. The disease has since been eradicated in the Moora, Narrogin-Williams and Katanning-Kojonup stock inspection districts and it is expected that only two affected properties will remain in the Albany-Mt. Barker area when releases now pending are put into effect. Affected flocks in the Bridgetown-Boyup Brook-Manjimup area have been reduced from about 170 to four, of which two flocks contain less than 100 sheep.

**Mount Manypeaks**

The Mount Manypeaks area, where extremely severe outbreaks of footrot have occurred during the past three years, is now virtually free from the disease. One property is still under quarantine as a precautionary measure but is believed to be free from infection.

Mr. Toop said that on three Mount Manypeaks properties a vast amount of control work had been carried out for three years without achieving eradication. Finally it was decided to sell these flocks for slaughter and to restock them with “clean” sheep.

For a fortnight after the paddocks had been supposedly cleared of sheep, stragglers continued to emerge, from swamps and thickets. As such stragglers would almost certainly be badly-infected animals, their presence would seem to explain the earlier failures.

While it was possible that there were still a few infected flocks not yet discovered, said Mr. Toop, the footrot position today was brighter than ever before in the State's history.

A disease which had caused serious economic loss to the industry for many years was now reduced to negligible proportions, and in view of the progress achieved during the past few years there appeared to be some justification for hopes of total eradication of footrot from West Australian flocks in the fairly near future.

This could only be achieved however, if farmers continued to remain “footrot-conscious” and maintained unending vigilance to ensure that no re-infection of flocks took place.

**CONTROL**

Being an annual, prevention of seeding is the primary consideration in its control. If only a few plants are present, these should be destroyed by pulling or hoeing before melons have formed. More extensive infestations can be handled by cultivation, but, because of the erosion hazard, working of the land during the summer months, when the Paddy Melon occurs, is usually undesirable.

The plants are susceptible to 2,4-D, 1 lb. acid equivalent per acre being sufficient and low-volume treatments being effective. As with grubbing, both cultivation and spraying should be undertaken before the melons develop.

Reference has been made to the fact that Paddy Melon favours places which retain moisture during the summer, being found most freely on fallowed land and along water courses. As the melons are carried readily by running water and the associated conditions are favourable for their growth, particular attention should be given to creeks and moist flats.
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