11-1958

Weeds of Western Australia - Docks (Rumex spp.)

G. R. W. Meadly

Follow this and additional works at: https://researchlibrary.agric.wa.gov.au/journal_agriculture3

Recommended Citation
Meadly, G. R. W. (1958) "Weeds of Western Australia - Docks (Rumex spp.)," Journal of the Department of Agriculture, Western Australia, Series 3: Vol. 7 : No. 6 , Article 9.
Available at: https://researchlibrary.agric.wa.gov.au/journal_agriculture3/vol7/iss6/9

This article is brought to you for free and open access by Research Library. It has been accepted for inclusion in Journal of the Department of Agriculture, Western Australia, Series 3 by an authorized administrator of Research Library. For more information, please contact jennifer.heathcote@agric.wa.gov.au, sandra.papenfus@agric.wa.gov.au, paul.orange@dpird.wa.gov.au.
A number of different species of Docks are weeds in many parts of the world. Their persistence is due mainly to their unpalatability, the production of large numbers of dormant seeds and the formation of a very strong tap root. Spasmodic cultivation serves to cut up the root and distribute the plant rather than control it.
Some families of plants contain many members which are useful for various purposes while others are only of significance because of their undesirable representatives. The Polygonaceae or buckwheat family as it is sometimes called, does not fit neatly into either of these groups for, besides containing a number of cultivated plants, it also includes several very undesirable weeds.

Among its members is buckwheat, a plant that is not a true wheat, but is grown extensively in many countries including the United States, India and China. It is used as stock food and also for making a pancake flour, while honey from buckwheat flowers has always possessed a high reputation for flavour. In this country, rhubarb is a better-known useful representative of the family.

On the debit side there are several undesirable species. Doublegee (Emex australis) is one of our most widespread and troublesome weeds and the family also includes wireweed (Polygonum aviculare), and sorrel (Rumex acetosella) along with docks (Rumex spp.), the subject of this article. In all, five different species of docks have been recorded for Western Australia. The curled dock (Rumex crispus) is probably the most abundant but the fiddle dock (R. pulcher), swamp dock (R. Brownii), and clustered dock (R. conglomeratus) are plants which cause concern in a number of localities. The pink dock (R. roseus), grown for its attractive flowers has also become established beyond garden confines.

DESCRIPTION
The various species differ in detail but have many features in common. A brief description of the curled dock will give some impression of the group. A large, strong, tapering rootstock descending deeply into the soil gives rise to a stout, branched stem from one to four feet in height. The lance-shaped leaves, varying from six inches to one foot long, have waved and crisped margins. The small reddish or greenish flowers are formed in crowded whorls and seeds are produced in large numbers. Each seed is about one tenth inch in length, three-sided and tapering to each end.

SIGNIFICANCE
Some gastric disturbances have been attributed to docks when eaten in large quantities by animals and cases of dermatitis have been recorded, but the plants are not considered to be toxic. They are troublesome weeds of arable and pasture land as well as lawns, being capable of competing strongly with crop, pasture and lawn species. Besides depleting the available moisture and nutrients in the soil, they have a strong shading effect and tend to crowd out desirable plants.

CONTROL
Their control is made difficult by two features not uncommon to persistent perennial weeds—a strongly-developed
CURLED DOCK (Rumex crispus L.)
(a)—"Seed" natural size and x 6; (a')—Fruit x 4; (b)—First stage of seedling; (b')—Seed leaf; (c and d)—Second and third stage of seedling; (e) Flowering plant

(British Ministry of Agriculture and Fisheries.)
taproot, along with production of a large number of seeds, some of which may remain dormant for many years. Root fragments are capable of producing new plants.

Much research into the control of docks has been undertaken in many countries. No highly effective method has been evolved although good results can be obtained by systematic cultural and chemical treatments. Isolated plants should be grubbed carefully. Seedlings can be killed quite readily by cultivation but with mature plants having deep taproots, ploughing, in order to be effective, must be undertaken to a depth that will sever the main portion of the root. One or more subsequent cultivations are usually necessary to prevent the cut portions of roots from developing into new independent plants.

Docks are not highly susceptible to the hormone-like or 2,4-D herbicides but no more effective chemicals are known. The ester of 2,4-D is favoured and, under pasture conditions, spot spraying with a solution containing 2 lb. to 4 lb. acid equivalent in 100 gallons of water per acre is recommended. The lower rate is sufficient for seedlings or freshly-rooted fragments but some regrowth from established plants can be expected even at 4 lb. acid equivalent per acre. Seedlings are most susceptible when small, but established plants are more vulnerable when flowering has just commenced. The 2,4-D preparations are not poisonous to stock but will damage clovers when applied at the rates suggested. For this reason and also because of the cost, a general application to pastures by means of a boom is seldom undertaken.

The ethyl ester of 2,4-D is the type in general use. With some New Zealand trials better results have been obtained with the Poly-ethylene glycol (PEG) ester of 2,4-D but so far this has not proved superior in local experiments. Some reports have favoured the butyric derivatives of 2,4-D and investigations are at present in progress with a view to evaluating the various preparations available.

Docks in a crop sown after effective ploughing are controlled more readily by means of chemicals. This is due to the fact that many of the plants are either seedlings or newly-developed from root fragments and also weeds generally are more susceptible when growing in a cereal crop than in a pasture. Quite good results without affecting the cereal have followed the application of 8 oz. acid equivalent of 2,4-D ester by means of a low-volume boom.

Whatever method is used, owing to the presence of dormant seeds, some further plants can be expected to appear over a period of years. These should not be allowed to mature and shed seed.

### ALSATIAN DOG BAN

The Minister for Agriculture (Mr. L. F. Kelly) said recently that a number of unsterilised Alsatian dogs have been located in W.A. during the past few months. Most of these had been brought overland, and the owners expressed concern when told that the animals must be treated or destroyed.

People obtaining Alsatian dogs are reminded that no Alsatian or part-Alsatian dog may be kept in W.A. unless it has been effectively sterilised. The only acceptable proof of sterilisation is a certificate from a registered veterinary surgeon. As local authorities cannot register Alsatian dogs unless a certificate of sterilisation is produced, any dogs brought into this State unsterilised, will be picked up eventually. In some cases the dogs have been too old for an operation to be performed, and it has been necessary for them to be destroyed.
NEW DENNIS 10 h.p. TWIN
AUSTRALIA'S MOST MODERN POWER SAW
MOBILE DRIVEN

Has that power, speed and performance required to carry that 42-inch blade so essential to measure requirements of....

TIMBER INDUSTRY :: CONTRACT CLEARING :: FENCING

5 h.p. CIRCULAR Suitable for the farmer

Both have many auxiliary purposes and attachments, including POST-HOLE BORER, POST-HOLE DIGGER and DRAG ATTACHMENT, if necessary

See Demonstrations at Factory, Maylands

Dennis Power Saws Pty. Ltd.
38 HARDY ROAD, MAYLANDS
Telephones 71 1032, 71 4519

It's FREE
Write now for a coloured brochure on the NEW Dennis Power Saws.
Also gives much valuable information on the handling and maintenance of power saws.
Fill in this coupon.

Please send me New Dennis Saw brochure
Name: __________________________
Address: __________________________

J. of A. Sept./Oct.

Please mention the "Journal of Agriculture, W.A." when writing to advertisers