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OREGON AGRICULTURAL COLLEGE

Experiment Station.

DEPARTMENT OF BOTANY.

Weedy Plants.

Circular No. I.

The object of this circular is to call the attention of farmers and agriculturists to the large crops of weeds annually grown on their farms and to enable us to aid them in getting rid of these pests. Everyone knows that a weed is a plant out of place but few have a definite knowledge of the habits of growth of these intruders or know how most effectually to destroy them.

A farmer should know how weeds get on his farm, the kind and amount of injury they cause, and how to get rid of them. Weed seeds are usually disseminated by natural means such as winds, streams, and animals, but they are often planted with grain or grass seed. Some of our worst weeds are thus brought from a distance but many come from neighboring fields or roadsides. By occupying valuable space and appropriating food from the soil they lessen the yield of crops and if allowed to ripen seed will reappear in greater numbers the next season.

As an illustration of the fruitfulness of weeds we estimated the number of seeds on a single plant of Moth Mullein (*Verbascum Blattaria*, L.) collected in Linn county. It bore ninety-five flowers and ninety-one capsules, three of these were selected and the seeds carefully counted, they averaged three-hundred and thirty seeds apiece. Assuming that the flowers are all fertile and yield in the same proportion we have 61,380 seeds as the product of a single plant and there were several hundred of these plants in the field: What a harvest the owner will reap next year!

The method of destroying weeds varies with the nature of the plant but in general if they are kept cut down they will soon die. An inexpensive way of doing this is to run a mowing machine over the fields during the summer and not permit the plants to come in bloom. Thistles, Tar-weed and other members of the Sunflower

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family if cut while in bloom *should be burned immediately* else the seed will ripen on the ground and be distributed by the wind. It is much easier to prevent the introduction of weeds than to destroy them when thoroughly established so great care should always be taken to sow clean seed, the extra expense will be more than repaid by the increased volume of the crop.

In order to learn what Oregon plants are most injurious we have prepared a number of questions and desire the co-operation of all interested in the work of destroying weedy plants. We ask that each farmer and agriculturist in the state (this means *you*) answer these questions as fully as possible with notes on the abundance, distribution and properties of poisonous or weedy plants. You will receive in return through the Station bulletins the benefit of the observations and experience of all the farmers in the state. The information thus obtained will be used in the preparation of an illustrated bulletin containing a classified list of the weedy plants of the state with the best method for destroying them, also a short history and popular description of each so you will have no difficulty in recognizing the worst weeds at sight and can destroy them before they become abundant enough to cause serious trouble.

Remember that the Station was established for your benefit and if at any time you desire information concerning plants growing on your farm, or any plant disease, we will be glad to answer your questions as fully as possible. Questions about plants should be accompanied by specimens so that we may know just what plant is meant.

The specimens should be complete, that is they should include the flowers, fruit, leaves and if herbaceous a portion of the root; often the root-leaves are different from the stem-leaves so both should be sent. Number the specimens, wrapping each species separately, and send in an unsealed package with your name and address on the outside, the postage is one cent an ounce which must be fully prepaid or the package will not be forwarded. In the accompanying letter state the date and place of collection and whether the plant is considered medicinal, poisonous or weedy, with any other information you consider of interest.

Address all communications relating to plants to Moses Craig, BOTANIST EXPERIMENT STATION, CORVALLIS, OREGON.

Tear off the annexed sheet, fill out the blank spaces and return it in enclosed envelope to BOTANIST, EXPERIMENT STATION, Corvallis, Oregon.

Name.....,

Post Office.....,

County.....

1. What are the worst weeds growing upon your farm and roadsides?

Name them in order of badness, beginning with the worst, and in case of doubt as to name or properties send specimens.

2. What is the character of the soil?

3. What means do you take to destroy your weed crop? Do you cut and burn them or do you compost them? With what result?

4. What weedy plants if any do you use for fodder and for what animals? Do you consider them of much value?

5. What new weeds have you noticed on your farm lately? Do they spread rapidly or do much damage?

6. What medicinal or poisonous plants grow on your farm? State some of their properties.....

7. Underline all of the following weeds that now grow on your farm. Place a question mark after the name of any plant that you do not know.

Tarweed, *Madia glomerata*, Hk.

Wild Oats, *Avena fatua*, L.

Dog's Fennel or May-weed, *Anthemis Cotula*, DC.

Canada Thistle, *Cnicus arvensis*, Hoffm.

Chess or Cheat-grass, *Bromus secalinus*, L.

Common Brake or Fern, *Pteris aquilina*, L.

Field or Sheep Sorrel, *Rumex Acetosella*, L.

Bull Thistle, *Cnicus lanceolatus*, Hoffm.

Ribgrass or Narrow-leaved Plantain, *Plantago lanceolata*, L.

Bluebottle, French Pink, Cornbloom, *Centaurea Cyanus*, L.

Ox-eye or White Daisy, *Chrysanthemum Leucanthemum*, L.

Moth Mullein, *Verbascum Blattaria*, L.

Pepper-weed, *Gilia squarrosa*, Hk. and Arn.

Burdock, *Arctium Lappa*, L.

Common Mullein, *Verbascum Thapsus*, L.

Wild Mustard, *Brassica campestris*, L.