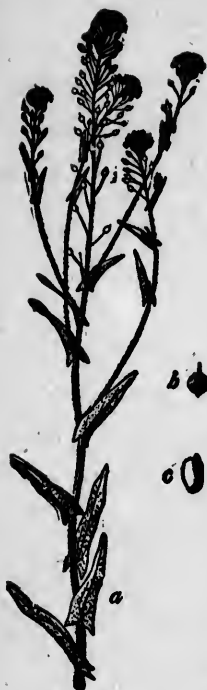


BALL MUSTARD.



Ball Mustard.

This is one of the new weeds in grain fields. From the rapidity with which it spread all through the west, there is no doubt that it is a weed which must be fought vigorously by farmers. It is alarmingly abundant in Manitoba and the North-West Territories wherever wheat is grown. Specimens have also been received from British Columbia, Ontario and Prince Edward Island. Ball mustard is a rather slender erect annual (or winter annual) two or three feet high. The leaves on the stem are arrow-shaped and are covered with star-shaped hairs. The flowers are orange yellow, so that the plant is easily recognized at a distance when growing in a crop; they are about $\frac{1}{4}$ of an inch in diameter and are borne in clusters at the end of the branches. The small roundish, single-seeded pods on slender foot-stalks are borne thickly all along the gradually lengthening branches.

The cut shown herewith has been kindly loaned by the United States Department of Agriculture, and was first used in Circular No. 10 by Mr. Lyster H. Dewey, "Three New Weeds of the Mustard Family" to whom our thanks are tendered.

The cut shows at *a* the tip of a plant a quarter of the natural size, at *b* a pod natural size and at *c* a seed enlarged.

PEPPER GRASS.

This plant is a native annual or winter annual. As a rule, it is not very troublesome in crops: but under certain climatic conditions it becomes an enemy of no small importance.



Pepper Grass.

During 1896 no weed was more frequently sent in as a pest in wheat lands, and at meetings of farmers held during the same summer in Manitoba, this weed above all others was the one inquired about. At similar meetings in 1897 it was only mentioned once, viz., at Glenboro, Man. Pepper Grass is a slender herb 12 to 18 inches high, which develops in the shape of a miniature tree with a central stem and a large spreading head. It produces an enormous quantity of very small, roundish seeds, two in each of the small, flat pods which are borne thickly all along the branches. This plant is generally most troublesome after wet springs on dry or light land, occasionally a serious pest in Manitoba and the Territories. It is much complained of by farmers in wet springs, particularly in wheat sown on stubble. Although generally described as an annual, Pepper Grass is much more of a

biennial in habit. Fall and spring ploughing or cultivating will destroy those autumn-germinated plants which are the ones most likely to do harm in wheat crops.