

already. About an inch above the ground, it cuts off the stem and then plugs up the end of the short stub next to the root and prepares for wintering between the plugged end and the root. It remains in this position during the winter months. When warm weather comes again, it pupates, and along in June the adults begin to emerge and egg laying begins again for the new annual brood.

How to Control the Western Wheat-stem Saw-fly

Few farmers realize the amount of damage that is done by the Western Wheat-stem Saw-fly. Where the crop is moderately light, it is sometimes necessary to rake the stubble to get many of the bent and broken straws. Control measures are as follow:

(1) **Practice crop rotation.** The Saw-fly attacks wheat, rye, and barley only, among the grains. Oats, corn, potatoes, etc., are immune from attack. At least do not sow wheat after wheat and under no circumstances practise what is known as "stubbling in." The adult saw-flies are not strong on the wing, and they will not travel far from the fields where they spent their larval life.

(2) **Plow the stubble lands of infested crops to a depth of six inches.** Cover all stubbles so that the harrows will not drag them out when the ground is being worked in the spring. The plowing should be done any time between the first week of August and the end of May. The larvae live over the winter in the hollow bases of the stubbles, and when these are turned under that deep, the saw-flies are unable to emerge in early summer. Edges of fields where infestation is usually worst should receive especial attention from the plow. In case of spring plowing, the land should be worked and packed before the end of May.

The above suggestions on control deal with preventing attacks by the insect. Once the stems are infested, nothing can be done to prevent damage. Therefore, fight the Western Wheat-stem Saw-fly during the autumn and spring.