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Shall We Grow

HUBAM

Sweetclover

Cooperative Extension Service, Home Economics
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SHALL WE GROW HUBAM SWEETCLOVER?
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There have been many inquiries relative to the merits of annual sweetclover (hubam) as compared to the common biennial sweetclover. These inquiries have come chiefly from farmers who are growing beets and early potatoes. These crops require early spring plowing, seed bed preparation, and planting if the best yields are to be obtained.

Biennial sweetclover at the beginning of its second year is usually not completely killed by early plowing. Thus, it may act as a weed in the beet or potato crop which follows, interfering with seed bed preparation, planting, thinning, cultivation, irrigation, and harvest. These farmers recognize that biennial sweetclover land plowed at the end of its second year's growth provides an ideal soil condition for growing beets and potatoes. However, they do not wish to permit this clover to make its full second year growth since this growth does not add a great amount of additional nitrogen, and the returns from sweetclover pasture, silage, or seed is commonly less than from a crop of potatoes, beets, or corn. It is for this reason that annual sweetclover is considered. The annual type produces seed and dies four to five months from planting, leaving no heavy roots or tops to interfere with tillage operations. The question arises as to whether or not the annual sweetclover will add enough nitrogen to the soil to maintain satisfactory yields of the following crops.

Studies have shown that a vigorous growth of hubam, plowed under when in full growth and before seed is set, will add about one-half as much available nitrogen to the soil as the first year growth of the biennial. If the hubam tops are removed by
grazing or otherwise, or if a seed crop is harvested, the amount of nitrogen added to the soil by the hubam may be less than one-tenth as much as would be added by the first year growth of the biennial. Nearly all of the nitrogen in the annual is in the tops.

The amount of nitrogen added to the soil by sweetclover, whether annual or biennial, is in proportion to the size and density of the growth. Under very good growing conditions, biennial sweetclover may add as much as 150 to 175 pounds of nitrogen per acre in its first year growth. A 15 ton crop of sugar beets will remove about 135 pounds of nitrogen from the soil. Calculations, therefore, indicate that even a heavy growth of hubam will add sufficient nitrogen for only about 8 to 9 tons of beets. If profitable yields are to be obtained, therefore, it will be necessary to supplement the nitrogen added by the hubam, with nitrogen from other sources such as barnyard manure and commercial fertilizers.

It must be kept in mind that where the hubam does not make a heavy growth, the nitrogen added to the soil is correspondingly reduced. It is well to consider, also, whether or not the occupancy of the land by hubam for an entire season is justified, considering other sources of nitrogen. The use of biennial sweetclover or alfalfa for soil improvement would seem to be a more dependable and a more profitable practice, even though the second year crop of the biennial is used for pasture, silage, or seed production.