and a fair crop of clover. Without the grain for a nurse crop, the weeds will outgrow the clover in both dry and wet years. The best type of nurse crop varies in different localities, but in general is in the descending order of winter wheat, flax, spring wheat, barley, and oats.

Much interest is expressed in the possibility of getting sweet clover established in native sod. The chances are against this, principally because the sweet-clover seed can not easily get down through the sod into the soil. Some success has been had by drilling the seed into the sod during a thaw in February or March. Others have obtained stands of sweet clover through sod land by plowing shallow furrows 3 feet apart across the field and sowing sweet clover in the fresh earth thus turned. Still others sow the unhulled seed in the sod in late fall and have it tramped into the soil with sheep during the winter and early spring.

A better way to obtain the full value from sweet clover is to rotate it with Sudan grass. The Sudan grass provides excellent grazing during the 6-weeks' gap that is likely to occur in midsummer between the time when the old sweet clover is finished and the new seeding of sweet clover is large enough for pasturing. The Sudan-grass stubble then provides an excellent seed bed for the next sweet-clover seeding.

L. W. KEPHART.

SWEET Potatoes As Possible Source of Starch Investigated

Starches of various types and grades are used in a great variety of industries. Starch (principally corn) is also a raw material for the manufacture of modified starches, dextrins, corn sirup, and corn sugar. The industrial value of starches used as such is based primarily upon adhesiveness, viscosity, penetrating power, and gloss. These properties differ in starches of various types and sources, and this variation results in some difference in price and adaptability for various purposes.

Although starch can be obtained from many plants, the principal source of starch in this country is corn. Production of starch from potatoes is practically confined to the State of Maine, where this industry serves as a means of utilization of cull potatoes.

The question whether starch can be recovered economically from cull sweet potatoes and satisfactorily used for industrial purposes has recently been raised. Sweet potatoes constitute the second largest vegetable crop in the United States, the production for 1927 being 94,000,000 bushels. A large quantity of culls results from the grading of sweet potatoes, averaging possibly 20 per cent of the total crop, and the production of starch is being considered as a possible means of using this waste. At present there are no means of utilizing cull sweet potatoes other than as hog and cattle feed.

The recovery of starch from cull sweet potatoes is being investigated by the Bureau of Chemistry and Soils of this department. A number of factors require careful consideration in order to determine whether such an undertaking is feasible. Among these are deterioration during storage, cost of transportation, and price which can be paid to producers. There are also a number of chemical and technological problems, such as production of a starch sufficiently light in color, determination of the characteristics of the starch and suitability for various purposes, and the utilization of other constituents of the sweet

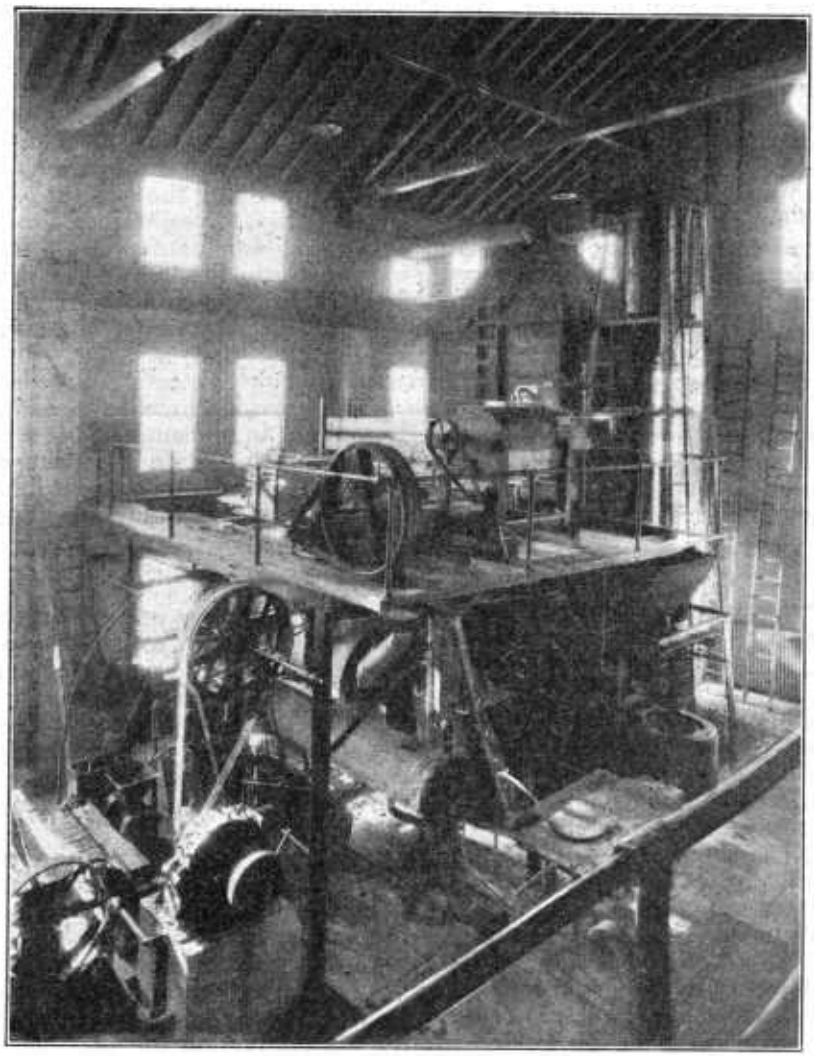

FIGURE 217.—Starch plant at Arlington Experiment Farm, Va.

potato. In addition to the production of starch and by-products, other means of utilizing cull sweet potatoes are being investigated.

H. S. PAINE.

TAX Relief Sought Through Controlling Local Expenditures Reduction in farm taxes may come through shifting the tax burden to other groups. It may also come through reduction in the expenditures of governmental units. Farmers and farm groups have taken a wide interest in the first method and some progress has been made in securing increased revenues from sources other than the general property tax. More attention should be devoted to the second method of reduction.