CROP ROTATION PROBLEMS IN SASKATCHEWAN

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The principal industry for Saskatchewan consists in growing grain for the market, chiefly wheat and oats. The plan of farming generally adopted consists in summer fallowing about one-third of the plow land for the purpose of killing weeds and conserving moisture, seeding wheat on this summer fallow, and seeding part wheat and part oats as the second crop after summer fallow. Thus the rotation of crops consists of summer fallow, wheat, wheat or summer fallow, wheat, oats.

This sort of a rotation of crops provides for moisture conservation and weed killing on the fallow field and is very good from the soil sanitation standpoint where oats are used as a second crop after fallow, because, as a general rule, oats and wheat do not suffer from the same disease infections nor the same insect injuries. This rotation, however, is sadly lacking in one particular. It makes no provision whatever for maintaining the nitrogen supply in the soil nor for the maintenance of the necessary requirement of soil fibre or organic matter.

This system of farming has an economic disadvantage, also, in that it leaves a considerable amount of fertile land idle each season. Approximately 7,000,000 acres of improved land in Saskatchewan lie fallow or idle each season. At a very conservative estimate the burden carried by the Saskatchewan farmer in maintaining this fallow acreage is $42,000,000 per year.

At first glance it might be concluded that the summer fallow ought to be abandoned post haste and the land put into crop. But continuous grain cropping will not work well. That has been amply demonstrated by the farmers of the Red River Valley in Manitoba and North Dakota, whose fields have become infested with the sow thistle and other noxious weeds. In addition to combating the weed evil in most parts of Saskatchewan, it is necessary to provide for the conservation of moisture in the system of crop rotation. This means that the summer fallow must be continued until such time as crop rotation systems are worked out which will provide for the control of weeds and the conservation of moisture.

There is only one known method of conserving moisture by means

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