

GROWING ALFALFA IN DRY AREAS

By Prof. Thos. Shaw.

It cannot be said that the growing of alfalfa in dry areas is as yet fully understood. Many things have been learned about its growth but some very important things are yet to be learned. In some parts of the dry belt it will succeed when grown in the ordinary way. In other parts it will not succeed when thus grown. If growing in the ordinary way is meant growing it so that the plants will occupy all the land as contrasted with the method of sowing in rows far distant from one another.

In nearly all areas in the Northwest where the precipitation is 15 inches and upwards in a year, alfalfa may be successfully grown, though the plants should occupy all the soil, providing not more than 5 pounds of good seed are sown per acre. From one to two good cuttings may be secured each year where this crop is properly managed, which will yield from 1 1/2 to 3 tons of good hay a year. Where the rain fall is less than 15 inches there are some areas in which one good cutting of hay may be looked for every year, but there are other areas that will not produce a crop worth cutting in a dry year when the plants occupy all the land, no matter how the crop is cared for.

The plants will live but they will only make a feeble growth. The sooner that this fact is understood the better, as those who understand it will be more ready to sow the crop in rows far enough apart to admit of cultivating between them. This is the surest way of growing alfalfa even when growing it for hay where the precipitation falls below 15 inches. There are some soils, however, that are so friable for a goodly distance from the surface that they will give a crop every year, but where the subsoil is very hard and dry, and before it has been broken up, it will not produce thus in a dry year when sown broadcast.

The following facts based upon experience have been learned about the sowing of alfalfa in dry areas: (1) That a stand of plants may be obtained readily on nearly all Northwest soils but this does not furnish a sure guarantee of a paying crop in the absence of row cultivation. (2) That while inoculating the soil is in all instances a safe thing to do, it is not absolutely necessary on all soils. (3) That the plan is not good which sows alfalfa on newly broken land, however well broken, or on shallow plowed land though the same may have been worked for several years. (4) That the aim should be to sow the crop on land that has been thoroughly cleaned by careful cultivation the season before sowing it. (5) That a liberal incorporation of farm yard manure in the soil the year before sowing is very helpful to the growth of the plants. (6) That not more than 5 to 6 pounds of good seed should be sown per acre on the broadcast plan and not more than 2 pounds when sown in rows 36 inches distant from one another. (7) That except on soils that drift and on lands subjected to irrigation, the seed should be sown without a nurse crop. (8) That stirring the soil with a disk or some other suitable implement in the spring is very helpful to the growth of the plants when sown on the broadcast plan. (9) That when sown for seed, the plants should be thinned in some way in the rows where the most abundant production of seed is to be looked for. (10) That the aim should be to have the crop go into the winter, with a top growth not less than 4 to 6 inches high. When alfalfa is to be sown in dry

areas the procedure should be in outline as follows: Either summer fallow the land or grow on it some cultivated crop and give clean and thorough cultivation. This is done the year before sowing the seed. The land should be plowed deeply and a most soil subsiding in addition will be a very decided help. If a liberal supply of farmyard manure, has been supplied to the land, before it is plowed, the condition will be so far improved. The following spring the land should be disked, but only to a moderate depth, and the disk followed with the harrow. The harrow should be again used, and again if necessary, before sowing the seed in early June, the season when showers are most likely to fall. The seed should be put in with the grain drill all the tubes running, or every alternate tube in use, only a limited number according to the plan decided on. If sown in rows to be cultivated like corn, 26 inches between the rows will be found a convenient distance for easy cultivation. A few inches one way or the other in the distance between the rows does not seriously affect the growth of the plants, but it should be considered because of its bearing on the cultivation. The seed should be buried from 1 to 2 inches deep and in some very light soils, even deeper. If many weeds are present, it may be necessary to clip them and the alfalfa with them, but the clipping should not be so low as to injure the crown of the young plants. It has not been proved that clipping is of any benefit to the young plants apart from the check which it gives to the weeds. The harrow or weeder may be used on the crop if necessary when the plants have reached the height of 4 or 5 inches, but not at an earlier stage.

On lands that are sub-irrigated, as in some river bottoms and at the base of certain foot hills, two good cuttings may be depended upon every year. On irrigated land three cuttings are common in Northwest areas. On such lands the seed is frequently sown with a nurse crop. For such a use barley is very suitable. From

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IMPROVE FARMER'S ROADS

This A Matter of Importance to Country's Development.

WASHINGTON, D. C., Jan. 12.—"Extensive highway improvement should begin with the improvement of the main traveled highways used by farmers in hauling their products to market," asserts former Senator Jonathan Bourne, Jr., chairman of the joint good roads committee. "That is one reason why my plan for federal aid leaves control of the construction with the states. If control should be vested in the general bureau, there would be danger of disregard of local needs and wishes. It may be that in a few states the greatest need is for inter-state highways. If so, the local authorities should so determine, and not have the matter decided for them by officials in Washington."

"I see no occasion for material controversy between the advocates of improvement of main traveled market roads and the advocates of construction of trans-state or inter-state roads. In general, the roads used chiefly by farmers will, when connected, form a state highway. The roads used by automobilists are, as a rule, the same roads the farmers use most. But there is no occasion for criticism if a portion of the road funds are used for improving stretches of road that will be used chiefly for pleasure. Automobilists are among the heavy taxpayers and they have a right to participate in the benefits of road expenditures. On the other hand, the auto owner who lives in a city has occasion to use a local market road a dozen times where he uses a long-distance trunk road once. It is to his interest to

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have the local road improved first. "But from any and every viewpoint it is fundamental that control of road construction should remain with the state and not be turned over to the federal government."

CHURCH NOTICES

Union. (Northeast of Bend, January 18). First church—Meeting at Richardson school house. Sunday school at 11 a. m., preaching service at 12 m. Second church—Meeting at Grange hall. Sunday school at 2 p. m. Third church—Meeting at Arnold school house. Sunday school at 2 p. m., preaching service at 3 p. m. No collections. ENSOR WIGMORE, Pastor.

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