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PROSO — A GRAIN MILLET

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PROSO, A GRAIN MILLET

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Proso, also known as hog millet and as broom corn millet, is a very old crop, having been grown in the old world since pre-historic times. Its early use was primarily as a grain crop for human food. Owing to its drouth resistance and early maturity, Proso has been grown in the northern Great Plains section of the United States for many years. It is not widely important as a field crop in Michigan but recently it has met with some favor in certain sections of the state. In those particular sections Proso is being used as a grain crop for livestock feed and is grown on the light sandy soils where a June-planted grain crop is needed. Oats and barley are relatively non-productive when planted so late and oftentimes yield only 10 bushels or less per acre. Proso can be planted late and frequently produces 15 or 20 bushels of grain per acre. Yields as high as 45 or 50 bushels of grain per acre have been reported. Where oats or barley can be planted early on suitable soil they are superior in yield and value to Proso.

FEEDING VALUE OF PROSO COMPARED WITH THAT OF OATS AND CORN

Proso is slightly higher in feeding value than oats but less valuable than corn. The grain is almost always ground before being fed and is usually mixed with other grain but may be fed alone to hogs. The grain may be used for all classes of livestock. It is not likely that Proso will replace either oats or barley as a grain crop where those crops can be grown satisfactorily. The Foxtail millets, such as the German and Hungarian, are considered more satisfactory for hay although Proso may be used for this purpose. The stems, leaves, and chaff of Proso are green when the seeds ripen. However, the straw is not so palatable as it would seem, although it is sometimes fed to livestock. There is nothing about this crop to warrant extravagant claims sometimes made nor unduly high prices for seed.

PROSO IS PLANTED IN JUNE

June 1 is about as soon as Proso should be planted and June 10 to 20 is usually quite satisfactory. It should not be planted until the ground has thoroughly warmed up and the danger of frost is over. Approximately sixty to eighty days are required from the time of seeding to harvest. Proso should be planted sufficiently early so that the seed will be well matured before cool weather and certainly before frost. Proso planted after the first week in July runs considerable risk of being injured by cool weather.

LIGHT RATE OF SEEDING USED

Michigan farmers have obtained very satisfactory yields of Proso with light rates of seeding. In several instances, the amount of seed sown was so small that it was difficult to distribute the seed evenly. The customary amount of seed varies from 10 to 15 pounds per acre. A grain drill set to sow two pecks of wheat per acre will deliver between 30 and 35 pounds of Proso seed per acre. When every other seed hole of the drill is stopped the rate of seeding will be about 15 pounds of seed per acre in drill rows 14 inches apart. This method has given very good results when alfalfa was seeded at the same time that Proso was sown. When soil conditions are favorable Proso is an excellent crop with which to seed alfalfa. Several farmers have reported favorable results from mixing sawdust with the Proso seed and seeding in the usual manner. The object of the sawdust was to make it possible to sow not more than 10 to 12 pounds of Proso seed per acre and distribute the seed evenly. Satisfactory results have also been obtained by mixing the Proso seed and the alfalfa seed together and seeding the mixture through the grass seed attachment of the grain drill.

When alfalfa is seeded with Proso consideration should be given to the discussion of lime, fertilizer and seedbed preparation presented on pages 33 to 43 of Circular Bulletin C-154, "Alfalfa in Michigan."

VARIETIES

The Yellow Manitoba is the variety being grown in Michigan at the present time. Varieties of Proso are classified according to the compactness of the heads or panicles, color of the seed, color of the chaff, height of the plant, and the time required to reach maturity. In the case of the Yellow Manitoba the head or panicle is loose and one-sided, the chaff is yellowish-green, and the seeds are brownish-yellow. Farmers' Bulletin 1162, published by the United States Department of Agriculture at Washington, D. C., contains description of the important varieties of Proso. Figure 1 shows the head characteristics of Foxtail Millet, Barnyard Millet and the Yellow Manitoba variety of Proso Millet.

HARVEST PRACTICES

Harvest usually takes place the latter part of August or the first half of September. Proso should be harvested when the upper half of the head is mature. If allowed to proceed much beyond this stage there will be undue shattering and loss of seed. If harvested much before this date there will be an abundance of immature seed present, resulting in a decreased yield. Proso leaves and stems are still somewhat green when the seed is sufficiently mature to harvest though if cut too early mold is likely to develop. Rainy weather during and just after harvest may cause some molding even though Proso is cut at the proper time.

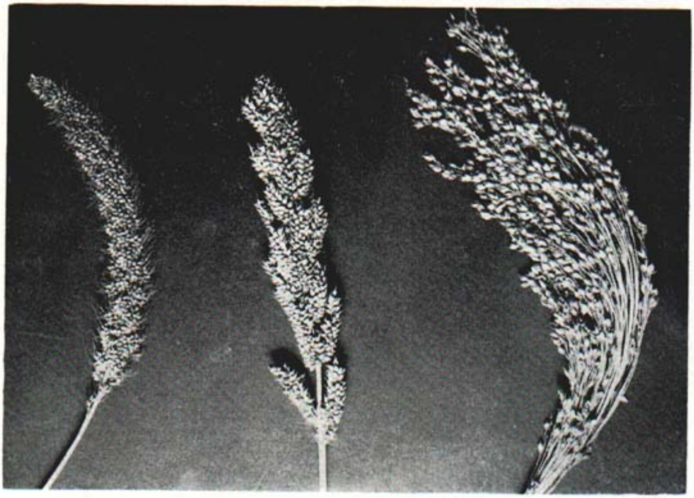

Fig. 1. Principal Kinds of Millets.

Left—Foxtail millet, German variety shown.

Center—Japanese barnyard millet, also known as billion dollar grass.

Right—Proso, also known as hog millet and broom corn millet. Yellow Manitoba variety shown.

Fig. 2. Proso should be placed in long shocks to facilitate drying. The leaves and stems are still somewhat green when the seed is sufficiently mature to harvest.

Proso may be harvested with the binder and threshed with the grain separator, or it may be harvested with the combine. Less danger of mold and a higher quality of seed may be obtained by spreading the seed to dry immediately after harvest if the weather is damp at harvest time. If cut with the binder, the Proso should be placed in long shocks to facilitate drying.

PROSO, A HEAVY FEEDER

Proso makes a quick growth and reaches maturity in 60 to 80 days, has a shallow fibrous root system and produces relatively good yields. Consequently it draws rather heavily on the upper few inches of soil fertility. To avoid depleting the productivity of the soil it is well if conditions permit to seed alfalfa with Proso and use a fertilizer containing both phosphorus and potash.

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