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Crops for Summer Seeding in South Dakota

By U. J. Norgaard, Extension Agronomist

For That Piece of Land—

"where early planted crop failed because of drought."
"that was too wet to be worked with the rest of the field.
"that was blown out."
"on which the crop was frost killed."
"where the cutworms got the crop."
"where winter grain was killed."

Sorghum (Grain or Forage)

A crop that withstands drought, heat and grasshoppers. If proper varieties and cultural practices are used surghums are adapted to all counties in the state. Plant about June 1 in mellow soil. Rate of planting: Forage, 8 pounds in low rainfall area, 12 pounds in higher rainfall area. Grain, 3 to 5 seeds per hill, spacing hills about 18 inches apart on well watered land and about 24 inches apart on drier land.

Sudan Grass (Pasture or Hay)

Sudan grass is outstanding for July and August supplementary pasture. Let sudan grass grow until from 12 to 18 inches high before pasturing. Use 15 pounds per acre drilled or broadcast. Use 4 pounds per acre planted in rows 36 to 62 inches apart. Cut for hay at late-dough stage. (Scarcity of roughage, drought or danger from loss by grasshoppers all affect time of cutting hay. If feed is scarce or weather turns dry a good crop of hay can be harvested in 50 days from seeding date.)

Sudan Grass—Soybean Combination

This combination makes excellent forage and one of the best emergency hay crops in the higher rainfall areas, well watered fields, or irrigation. It makes an excellent crop for silage. Soybean hay is high in digestible protein (13 percent). One disadvantage is that soybeans are very susceptible to grasshopper damage. For hay a later maturing variety may be used. Sudan grass and soybeans grow well together. The combination is easy to harvest and cure. They can be seeded together with drill. Plant one bushel soybeans to about 8 pounds of sudan grass seed per acre.

Another method of seeding which gives satisfactory results is to plant soybeans first with grain drill at the rate of 1 bushel per acre and then drill in the Sudan Grass at rate of 15 to 20 pounds per acre when the soy beans are about 2 inches tall.

Flint Corn

Early varieties like Gehu, Squaw or early white can sometimes be planted as late as June 15 to July 1 and still make a good crop. Fine for "hoggings off." Flint corn has considerable grasshopper resistance. In some areas stockmen plant flint corn and utilize it by hoggings it off either in the fall or in the spring after seedling field to barley. The corn and early barley pasture spells economical pork production. By careful management a normal barley crop is also secured.

Soybeans (For Beans or Hay)

Soybeans, when planted for bean production, should not be planted later than June 10. Plant as soon as soil is warm. Recommended varieties, listed in order of earliness, are Ottowa a Mandarim, Blackhawk, Hawkeye, Lincoln.

Soybeans for hay in areas adapted to this crop ranks high as an emergency high protein roughage. They can be grown alone or, as suggested under Sudan grass—Soybean Combination, as a combination crop with Sudan grass. For hay production soybeans do not need to come to full maturity. Therefore somewhat later varieties may be used.

COMMENTS

The chart on other side shows the average dates of killing frosts in every county of South Dakota. This information is useful in calculating the latest date it may be feasible to plant the crops listed. If a date, say about 10 days this side of the average is used, it should be reasonably safe as far as frost is concerned.

Some of the crops listed here are high risk crops in South Dakota because of our natural climatic conditions. For instance, Soybeans would be very risky in some areas. The millets, while they require very little moisture, are high risk crops because they are middle of the summer crops that need frequent rains in July and August.

Therefore, in many areas Sorghums, Sudan Grass, and Flint Corn stand out as the most reliable late planted crops because they are capable of survival through the critical "growing season" of July and August.

For row crops planted at a late date, plant in moist soil to insure immediate germination. This can usually be done by use of the furrow-opener attachment on the planter. Make a furrow as shallow as possible and plant the seed in moist soil at the correct depth: Corn 1 to 2 inches, Sorghum 1 inch, Soybeans 1 to 1½ inches, Beans 1 inch. Use furrow opener on the contour.

Proso Millet

Proso is a grain millet which requires only 60 to 80 days to mature. Therefore it can be planted as late as July 5 if moisture is favorable. It has a shallow root system and while it has small moisture requirement it needs frequent rains. It cannot stand prolonged drought like sorghums. Excellent feed for cattle, sheep, hogs and poultry. For livestock, seed should be ground. It is rated nearly as valuable as corn for feed. Seed 1 inch deep in warm soil at rate of 20 pounds per acre. Important varieties are Red Thurgai which matures in about 70 days. Early Fortune or white proso is an extremely early variety which under favorable conditions, may be ready to harvest in 60 days. Black Vorgas is a late grain millet with brown-black seed. It requires about 80 days to mature.

Foxtail Millet

These are various varieties of these. Some of these are known as Kursk, Siberian, Hungarian and German. Kursk and Siberian are the earliest and best adapted to the low rainfall areas. Hungarian requires more moisture than Siberian. German millet is about 2 weeks later than Siberian. Kursk or Siberian will mature in about 70 days but under favorable growing conditions only 50 days are required to mature it sufficiently for hay. Seed 1 inch deep in warm soil any time in June and as late as July 10. German millet should be seeded not later than July 1.

Buckwheat

Buckwheat is better adapted to the cool moist climate of the northeastern part of the United States than to South Dakota. However, it only takes 75 to 80 days to mature and may produce a crop in our state if seeded as late as July 10, and if weather conditions (cool and moist) are favorable for its growth. Seed about 3 pecks per acre.

Winter Rye

Rye may be considered the last resort to get early fall pasture. Winter rye makes excellent fall pasture, and, if conditions are favorable, may make a good early spring pasture and later a crop of rye hay or grain. Earliest date to seed would be the last two weeks in July. Ordinarily, of course, winter rye is seeded September 15 if early fall pasture is not urgent. Seed 5 pecks per acre.

EXTENSION SERVICE

South Dakota State College
U. S. DEPT. OF AGRICULTURE
Average Dates for Killing Frosts in South Dakota Counties

Sept. 21—Harding
Sept. 22—Shannon
Sept. 23—Corson, Deuel
Sept. 24—Bennett, Butte, Edmonds, Marshall, Todd
Sept. 25—Day, McPherson, Miner, Potter, Ziebach
Sept. 26—Buffalo, Campbell, Custer, Hamlin, Perkins
Sept. 27—Brown, Codington, Dewey, Moody, Roberts
Sept. 28—Brookings, Hyde, Jerauld, Kingsbury, Meade, Sanborn, Walworth
Sept. 29—Clark, Faulk, Grant, Hand, Mellette, Spink, Sully
Sept. 30—Douglas, Fall River
Oct. 1—Lake
Oct. 2—Beadle, Hanson, Hutchinson, Lawrence, Lincoln, Lyman, Washabaugh
Oct. 3—Bon Homme, Charles Mix, Jackson, McCook, Minnehaha, Tripp
Oct. 4—Brule, Gregory, Pennington, Stanley, Turner
Oct. 5—Haakon
Oct. 6—Davison, Union
Oct. 7—Aurora
Oct. 8—Clay, Hughes, Jones
Oct. 9—Yankton

These dates are copied from “Climate of South Dakota, 1941, Agricultural Year book, U.S.D.A.” They represent averages from a period from 20 to 40 years. In planting late crops consider that in about one-half the years killing frosts will come a week or 10 days earlier than the above dates.

CROPS FOR SUMMER SEEDING

<table>
<thead>
<tr>
<th>Crops</th>
<th>Use</th>
<th>Approx days to mature</th>
<th>Approx latest date to plant*</th>
<th>Rate of seeding per acre</th>
<th>Depth of Seeding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forage Sorghum</td>
<td>Forage</td>
<td>85-100</td>
<td>June 15</td>
<td>8 lbs. to 12 lbs.</td>
<td>1 to 1½ inch</td>
</tr>
<tr>
<td>Grain Sorghum</td>
<td>Grain</td>
<td>85-100</td>
<td>June 15</td>
<td>3 lbs. to 6 lbs.</td>
<td>1 to 1½ inch</td>
</tr>
<tr>
<td>Sudan Grass</td>
<td>Pasture or Hay</td>
<td>60-70</td>
<td>July 1</td>
<td>15 lbs.</td>
<td>1 inch</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4 lbs. in rows</td>
<td></td>
</tr>
<tr>
<td>Sudan—Soybean Combination</td>
<td>Hay</td>
<td>65-70</td>
<td>June 15</td>
<td>1 bu. Soybeans 8 lbs. Sud</td>
<td>1 inch</td>
</tr>
<tr>
<td>Flint Corn</td>
<td>Grain</td>
<td>85-100</td>
<td>June 25</td>
<td>5 lbs. or 6 lbs.</td>
<td>1 to 2 inches</td>
</tr>
<tr>
<td>Proso Millet</td>
<td>Grain</td>
<td>60-80</td>
<td>July 5</td>
<td>20 lbs.</td>
<td>1 inch</td>
</tr>
<tr>
<td>Foxtail Millet</td>
<td>Hay</td>
<td>50-70</td>
<td>July 10</td>
<td>15 lbs.</td>
<td>1 inch</td>
</tr>
<tr>
<td>Rape</td>
<td>Pasture</td>
<td>65-75</td>
<td>July 20</td>
<td>5 lbs. drilled 3 lbs. in rows</td>
<td>Less than 1 inch</td>
</tr>
<tr>
<td>Soybean Hay</td>
<td>Hay</td>
<td>75-100</td>
<td>June 15</td>
<td>45 lbs.</td>
<td>1 inch</td>
</tr>
<tr>
<td>Soybeans</td>
<td>Seed</td>
<td>100-110</td>
<td>June 10</td>
<td>45 lbs.</td>
<td>1 to 1½ inch</td>
</tr>
<tr>
<td>Buckwheat</td>
<td>Grain</td>
<td>75-100</td>
<td>July 10</td>
<td>3 pecks</td>
<td>½ to 1 inch</td>
</tr>
<tr>
<td>Rye</td>
<td>Fall Pasture</td>
<td></td>
<td>July 15†</td>
<td>5 pecks</td>
<td>1 inch</td>
</tr>
</tbody>
</table>

* This date will vary by counties. Consult killing frost map and refer to first paragraph under “Comments.”
† This date represents earliest date rye should be seeded. Optimum date for seeding fall rye for grain production is about September 15.