1978

Set-Aside Acres

Cooperative Extension South Dakota State University

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set-aside acres
The 1978 “Farm Program” has several similarities to previous programs, but also some major differences. The primary purpose of this fact sheet is to give suggestions for handling set-aside acres.

**Wheat and Feed Grain Programs**

For more information, contact your local ASCS office. We will state, however, that the 1978 “Farm Program” is similar to previous programs in that the most important components for South Dakota are the wheat and feed grain programs. A major difference is that the historical “acreage allotments” for each crop on each farm have been discontinued. In their place is the “normal crop acreage” (NCA).

**Normal Crop Acreage**

The NCA will consist of the acres of most of the annual crops that were planted in 1977. The crops are: wheat, corn, barley, sorghum, oats, soybeans, flax, rye, sunflowers, dry edible beans, several crops not grown in South Dakota, and certain other crops, such as millet, that may be designated by the State Agricultural Conservation and Stabilization Committee (ASCS).

The total acreage of annual crops (including set-aside acres) may be equal to the 1977 NCA. If you plant program crops (wheat, corn, barley, grain sorghum), you must use some acreage for set aside.

You can be eligible for “commodity” or “facility loans” without having any set-aside acres if you plant non-program crops, such as soybeans, oats, flax or sunflowers. If you operate more than one farm, all farms should be in compliance in order for any one to qualify for program benefits.

**Wheat Program**

As in previous programs, the wheat program includes all classes of wheat—hard red winter, hard red spring and durum in South Dakota. You can sign up for the program and not make a definite commitment to participate in it until July 1.

If you decide to participate in the program, there is no restriction on number of acres you can plant to wheat. However, you must set aside acreage equal to 20% of the planted acreage. Minimum size for tracts to be set aside is 2 acres.

If you do not plant wheat, there is no requirement for set-aside acres. Of course, you will not receive any benefits from the current program, but perhaps more importantly, you will not lose eligibility to plant wheat in future programs. The program of acreage allotments has been discontinued.

**Feed Grain Program**

As in previous programs, the feed grain program includes corn, barley and grain sorghum (see pages 3 and 4 of EMC 775, “Sorghum Varieties and Hybrids,” for a list of grain sorghum and dual purpose sorghum varieties and hybrids).

The regulations are essentially the same as for the wheat program. You do not make a definite commitment to the program until July 1, and there are no restrictions on the number of acres that you can plant to any of the three crops.

If you plant corn, barley or grain sorghum, the set-aside acreage must be 10% of the total crop planted. You may also elect to participate in a voluntary additional 10% land diversion program. To receive land diversion payments, you cannot exceed your 1977 planting for each of the crops or exceed the NCA for the farm. Payment for the additional land diversion will be 20 cents a bushel for corn and 12 cents a bushel for barley and grain sorghum times your established yield, for each acre planted for the harvest in 1978.

Tracts of set aside must be at least 2 acres in size and may be the corners of fields irrigated with a center pivot. You will not lose eligibility to plant these crops in future programs if you do not plant them this year, and you will not need any set-aside acres.

**Benefits of Programs**

If you enroll in the wheat program you will be eligible for low-yield or prevented planting (disaster) payments on poor wheat crops and deficiency payments on wheat sold if the average price for the first 5 months is below the target price. You can receive the same benefits for corn, barley, and grain sorghum if you participate in the feed grain program.

Those who do not sign up the programs will not receive these payments for 1978 though they may have done so in 1977.

All planted acres of eligible crops (wheat, corn, barley or grain sorghum) are covered for low-yield payments and deficiency payments. Only allotted acres were eligible for these payments in previous years.

Payments are considered for each crop individually. You could get a payment for wheat or barley even if you had an excellent corn crop. Payments cover acres that were not planted because of adverse weather as well as low yields from acres that were planted. Payments will be about 50% of the target price for the specific crop and will be made if total production of the crop falls below 60% of the normal production for the total planted acres.

Deficiency payments will be made for the difference between the price received for the crop (wheat, barley or grain sorghum) during the first 5 months of the market year and the target price. If, for example, the average price of wheat is $2.50 per bushel and the target price is $3.40 (approved in Emergency Agricultural Act of 1978), you would be eligible for a deficiency payment of 90 cents per bushel if you participated in the wheat program.

No crops other than wheat, corn, barley and grain sorghum are eligible for low-yield, prevented planting or deficiency payments. However, certain other crops such as oats and soybeans as well as the four discussed here are eligible for the price support loan programs.

**Compensation for Set-Aside Acres**

Unlike previous programs, there is no direct payment for the acres in the first 20% set aside for wheat or the first 10% set aside for corn, barley or grain sorghum. Theoretically, decreased production resulting from reduced acreage will lower the total supply and raise market price so that income from 80 to 90% of the acreage will exceed income obtained from present low market prices. There are direct benefits for acreage in excess of 20% of your wheat acreage or 10% of your feed grain acreage.

**Uses of Set-aside Acres**

Set-aside acres are not necessary for any crop except wheat, corn, barley and grain sorghum. Set-aside acres must be cropland that was tilled during one of the last 3 years for the production of a crop. A vegetative cover must be maintained and weeds and insects must be controlled. The vegetative cover may be a growing crop, standing stubble, a mulch of crop residue or an ecofallow practice.

**Growing Crops**

You can establish a cover crop, green manure crop or forage crop for next year.
During the period that the acres of these crops are classed as set-aside acres, they cannot be harvested for grain or forage, but they may be grazed between October 1 and March 30.

Perhaps the most practical growing crop is a mixture of perennial grasses or grasses and alfalfa. With the expenses of establishing one crop, the same acreage can be used as set aside for several years. Though hay cannot be harvested, it will provide grazing of relatively low quality forage in late fall. In some cases you may be able to obtain cost-share assistance under the ACP or Great Plains Program.

Spring-sown crops such as oats, wheat, barley or millet that produce a grain crop may be used as vegetative cover; but you must clip the top growth before grain develops. Winter crops, such as rye or wheat seeded in spring do not head out and do not have to be clipped. Ordinarily, these crops do not make good pasture during the period October 1 to March 30. Soybeans are not approved for use as a cover crop on set-aside acres.

You can use any of the sudangrass varieties and hybrids and sorghum-sudan hybrids listed on page 1 of EMC 775, "Sorghum Varieties and Hybrids," for planting on set-aside acres. They are better suited for grazing during late fall than small grain crops. The sorghum-sudans have thicker stems and are more apt to stay erect and be grazable after freezing and after snow falls. The sorghum hybrids listed on page 2 of EMC 775 are not approved as a cover crop for use as a cover crop on set-aside acres.

You should remember that the foliage of most sudangrass or sorghum-sudan hybrids contains a high level of prussic acid after being frosted. You can expect some death loss if you allow animals to graze these crops within a week after freezing. The dry leaves and stems are safe to feed, but be very careful not to graze new growth that may appear after freezing; it too contains a high level of prussic acid.

**Crop Residue**

You can use crop residue or ecohallow as protection for set-aside acres under certain conditions. The minimum amount required depends on soil texture and whether tillage is done with an implement that ridges the soil surface.

With ridging, the minimum amounts of residue that must be left on top of most soils is 500 lb per acre of small grain residue, 1000 lb of corn or sorghum stalks, 1500 lb of corn or sorghum stubble (cut for silage), or 3000 lb of soybean stubble. On soils classed as sandy loams, silty clays and clays, the minimum amount of residue is 750 lb of small grain stubble, 1200 lb of corn or sorghum stalks or 2300 lb of corn or sorghum stubble (cut for silage). On soils classed as fine and medium fine sands, the minimums may be reduced somewhat on narrow strips as indicated in fact sheets on Reducing Wind Erosion: FS 542 for East Central SD, FS 543 for West Central SD, FS 544 for Western SD and FS 545 for Eastern SD.
Without ridging, the minimum residue requirements are 50 to 100% higher. On most soils, the minimums are 1000 lb of small grain stubble, 1500 lb of corn or sorghum stalks or 3000 lb of corn or sorghum stubble (cut for silage). On sandy loams, silty clays and clays, they are 1250 lb for small grain, 1900 lb for corn or sorghum stalks and 3500 lb for corn or sorghum stubble (cut for silage).

As a general rule, you can expect that a standard variety of wheat will produce 100 lb and a semi-dwarf variety 80 lb of straw for each bushel of grain. Oats produces about 60 lb of straw and corn and sorghum about 60 lb of stover for each bushel of grain. You can make more accurate estimates by weighing (in ounces) the amount of residue from three 1-square-yard areas. Multiply the number of ounces by 100 to estimate the pounds of residue per acre. (For example: 16 ounces x 100 = 1600 lb/A).

You can use some tillage operations to control weeds. You should remember, however, that some implements turn under more residue than others. A rod weeder turns under about 10% of the residue, a wide (20 to 30 inches) V-sweep 15%, a duckfoot field cultivator (12- to 18-inch sweeps) 20%, a chisel plow (2-inch points) 25%, a one-way disk (18-to 20-inch disks), offset disk or heavy tandem disk 40%, one-way disk (24- to 26-inch disks) 50% and moldboard plow 95%. Two operations with a one-way disk on a field with 1200 lb of residue leaves only 300 lb on the surface, while three operations with a wide V-sweep leaves 725 to 750 lb.

Special Practices for Ecofallow

Ecofallow is a system of controlling weeds and conserving soil moisture in a crop rotation with minimum disturbance of crop residue and soil. Weed control is obtained between harvesting one crop and growing the next with sweep tillage and/or herbicides.

Ordinary black fallow is not an acceptable use for set-aside acres. Though minimum tillage may be used to control weeds, you must leave some crop residue on the soil surface and/or use barriers for protection against erosion. This limits the number of tillage operations that can be performed. You may have to use herbicides to help control the weeds.

Atrazine + Tillage

Avoid leaving windrows of straw when harvesting. Spray with 1 1/2 lb AAtrex 80W or 1 qt AAtrex 4L in small grain stubble immediately after harvest. (Do not use on sandy soils or those with exposed calcareous subsoil.)

Volunteer wheat may not be controlled satisfactorily. Perennials and established annuals will not be controlled. Use tillage or 1 qt/A of paraquat to control annuals that have emerged. If you get 1/4 inch of rain within 1 week after applying atrazine, you should get good control of several species that were not up at time of spraying, such as downy brome, kochia, wild lettuce, pigweed, Russian thistle, wild sunflowers and perhaps some other annuals (not foxtails) until late spring. Use tillage and/or 1/2 lb/A of 2,4-D to control weeds that emerge during the summer. Plant winter wheat.

Carryover from atrazine applications made after September 1 may cause damage to the following winter wheat crop.
Fall tillage and/or ½ lb/A of 2,4-D or 1 qt/A of paraquat may be used to control annuals that were established before atrazine was applied. Per acre chemical costs are about 90 cents for 2,4-D, $1.90 for AAtrex 80W, $3.70 for AAtrex 4L and $10.00 for paraquat.

Cyanazine + Tillage
Avoid leaving windrows of straw on the field. Spray with cyanazine during early spring. Use 2½ lb of Bladex SOW on most soils or 3½ lb/A on heavy soils with over 2% organic matter. Perennials and annuals that have emerged will not be controlled. Use tillage or 1 qt/A of paraquat mixed with cyanazine to control annuals that have emerged. If you get ¾-inch rain within one week after spraying, many species of annuals (including downy brome) that were not up at time of treatment will be controlled until late spring. Use tillage and/or ⅛ lb of 2,4-D or 1 qt/A of paraquat to control annual weeds that emerge during the summer. Do not graze or feed straw treated with cyanazine. Any major crop grown in South Dakota can be planted the next fall or spring.

Cyanazine may be applied in late fall (the later the better). Fall applications are not effective as late in the year as spring treatments and should be applied at least 2 weeks before the soil freezes. Per acre chemical costs are about 90 cents for 2,4-D, $7.50 for 2½ lb of Bladex, $10.50 for 3½ lb of Bladex and $10.00 for paraquat.

2,4-D + Dalapon + Tillage
Spray in early spring with ½ lb (1 pt) of 2,4-D amine and 2 lb/A of dalapon (2 2/3 lb of Dowpon) per acre. 2,4-D controls many species of broadleafed weeds. Use the rates suggested under “Noxious Weeds” on areas infested with these weeds. Dalapon controls foxtails and other annual grasses if it is applied before they are 2 inches tall. Use 8 lb/A of Dowpon on areas infested with quackgrass. In many cases you can apply 2,4-D amine and dalapon at the same time. Use tillage or a second application of either or both herbicides to control weeds that emerge during the summer. Do not use dalapon after August 1, if you plan to plant small grain the following spring. Do not harvest the seed. We don’t know that this type of barrier has been used in South Dakota; however, it has been very effective in other areas and is being tested in South Dakota. Where sunflowers are used extensively, special planters are used. We don’t have those planters, but we think they could be planted in the same manner as suggested for flax.

2,4-D, MCPA
With 2,4-D or MCPA spray field bindweed, Canada thistle or perennial sow-thistle during the first week of June with ¾ lb/A of 2,4-D amine (1 ½ pts) per acre—may use ¾ lb/A of MCPA on

Barriers
In areas where it is impossible or impractical to maintain the minimum amounts of crop residue, you may keep in compliance by planting temporary or permanent barriers. Flax, sudangrass, sunflowers or tall wheatgrass are acceptable crops for this use. These barriers reduce wind velocity, prevent wind erosion and hold snow in place.

Flax
Plant flax in strips spaced about 40 feet apart in mid-July. Plant ½ to ¾ bushel of weed-free seed per acre. Plant three rows spaced 6 to 7 inches apart. Leave standing until seedbed is prepared for the next crop. One way to plant the flax is to pull a small pony-press drill, with all but three seed cups closed behind the middle of a large duckfoot cultivator. You may want to adjust the furrow openers for different depths of planting to improve chances of getting a good stand. For subsequent cultivations, you can remove the middle sweeps on the cultivator and straddle the flax strips. A few farmers have proven that this system works. Other methods of planting that give similar results may be used.

Sunflowers, Sudangrass
Plant sunflowers or sudangrass in strips spaced about 40 feet apart during late June. Plant three or four rows spaced 6 to 7 inches apart in each strip. Space sunflower seeds 6 to 8 inches apart in the row or plant sudangrass with 8 to 10 seeds per foot of row. Leave standing until seedbed is prepared for the next crop. Do not harvest the seed.

Tall Wheatgrass
Plant tall wheatgrass in 2-row strips with 20 to 40 inches between rows and strips spaced 35 to 50 feet apart. Plant seeds about 4 inches apart in the rows. This perennial grass makes a permanent barrier. Plan the width between barriers to fit the width of your fallowing and seeding equipment.

Noxious Weed Control
Three herbicides, 2,4-D, dicamba (Banvel) and glyphosate (Roundup), may be used to help control certain noxious weeds. Cost-share benefits may be obtained in some counties for the use of these practices.

2,4-D, MCPA
With 2,4-D or MCPA spray field bindweed, Canada thistle or perennial sow-thistle during the first week of June with ¾ lb/A of 2,4-D amine (1 ½ pts) per acre—may use ¾ lb/A of MCPA on
Canada thistle. Spray leafy spurge or Russian knapweed with 1½ lb/A of 2,4-D LV ester (1½ qt/A) during the latter half of May.

Cultivate every 3 weeks to a depth of 4 or 5 inches with duckfoot or sweep-type cultivator until there is danger of reducing crop residue below the minimum levels. If this point is reached early in the season, you may spray actively growing weeds a second time in September—at least one week before a killing frost is expected.

Minimum levels of residue for an entire field are as outlined earlier for ridged surfaces. However, the minimum residue levels are reduced 50% for areas that do not exceed 15 rods in width.

Normally you can plant a crop of small grain, corn or sorghum within 2 weeks of the last 2,4-D or MCPA application without adverse effect on the crop. You can expect to reduce weed stands by 80 to 90 % if you spray and perform three cultivations on bindweed or grasses or four cultivations on spurge or knapweed. If you perform this number of cultivations, you may be able to qualify for cost-sharing for noxious weed control in some counties.

Per acre costs for one application are about $1.25 for 2,4-D amine and $3.20 for LV ester and $2.40 for MCPA amine.

Dicamba

Spray with 2 lb/A of dicamba (2 qt of 4 lb/gal Banvel) per acre, during September on actively growing patches of field bindweed or Canada thistle. You should reduce the stand by 50 to 90%. During the next growing season, control annual weeds and regrowth of these perennials with tillage and/or 2,4-D as outlined for “atrazine and tillage.” Plant winter wheat.

Do not spray large areas, as injury to the crop can be expected. Per acre cost of dicamba is about $15.00.

Glyphosate

Spray with glyphosate (Roundup) to control emerged annual weeds and reduce stands of noxious weeds. Spray with 1 quart of Roundup per acre on actively growing annual grasses or broad-leaved weeds that are less than 6 inches tall. Use 1½ quarts if weeds are larger. Do not cultivate for at least 3 days after spraying.

Spray field bindweed or Canada thistle when plants are actively growing and are at or near full bloom. Mix 3 to 4 quarts for Canada thistle, or 4 to 5 quarts for field bindweed in at least 20 gallons of water per acre. Spray during late summer or fall—before frost. Do not cultivate for at least 7 days after spraying.

Spray quackgrass when it is at least 8 inches tall. Use 2 to 3 quarts in at least 20 gallons of water per acre. Apply any time of year, but do not fall plow or spring till prior to a spring application. Do not till for at least 3 days after spraying.

There is no carryover effect from the herbicide, and small grain, corn, sorghum or soybeans may be planted shortly after spraying with Roundup. Cost of Roundup is about $15 per quart.

Wildlife Habitat

You may use set-aside acres for the production of wildlife habitat. In some cases you may qualify for cost-sharing under the ACP or Great Plains Program. You can plant food plots or permanent habitat.

Food Plots

Plant corn, sunflowers, sorghum or sudangrass on 5-acre areas within ¼ mile (preferably adjacent to) good winter cover.

Under most conditions, grazing with domestic livestock or harvesting is not permitted prior to March 1. However, under some conditions, it is permissible to cut and stack the crops for winter use by wildlife. Contact the local conservation officer to see if winter snow conditions make the stacking of wildlife food desirable.

Permanent Wildlife Habitat

Plant either alfalfa or sweet clover alone or in a mixture with a tall or midtall perennial grass such as tall wheatgrass, intermediate wheatgrass, switchgrass, Indiangrass or big bluestem. A suggested mixture is 2 lb/A of alfalfa, 2 lb/A of yellow sweet clover and 4 lb/A of tall wheatgrass.

Plant 10- to 20- (preferably 20) acre tracts. Avoid the use of long narrow strips. Use a minimum width of 40 rods. Do not harvest or graze with domestic livestock.

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