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Requested Launch Date: June 28, 2019

Primary Vertical: Crops

Community – Tab Combination(s): cover crops, forages, other crops, crop management

Title: Cover Crops 2019- What to Plant When

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Reviewer (if required):

Keywords: cover crop, prevent plant

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Article Text:



Photo 1. A warm season cover crop blend grows in central South Dakota.

ALT TEXT: A tall grassy warm season cover crop blend grown in central South Dakota.

Photo Courtesy Sara Bauder.

As many Midwest producers look to cover crops to build soil health and/or provide supplemental forage after a soggy spring, many questions are arising regarding management decisions, specifically, species selection and planting timing.

There is no 'hard and fast' blanketed mix that can be recommended to all producers, as each grower is in a unique circumstance with different production environments, soil types and management techniques. Rather than seeking the 'go-to' mix of your neighbor's choosing, ask yourself a few fundamental questions before planting a cover crop. Below are some of the critical questions producers should consider before planting cover crops on prevent plant acres this season.

- 1) **Herbicide history.** Consider your crop rotation as well as haying/chopping and grazing restrictions of herbicides previously applied; this includes herbicides applied before planting cover crops this season as well as those applied in the previous season. This is a key component to having a successful cover crop. For more considerations regarding herbicide carryover click [here](#).
- 2) **Insurance and Farm Service Agency (FSA) Guidelines.** Be sure to check with your insurance agent and FSA representative on all details regarding the seeding of your cover crop. The prevent plant harvest date for mechanical forage harvest and/or grazing has been changed to September 1 for 2019; frequently asked questions and answers regarding insurance can be found on the [Risk Management Agency \(RMA\) website](#).
- 3) **Purpose.** Always begin with the end in mind. Soil health, weed suppression, nutrient capture, soil moisture management, additional harvested forage, and grazing may all be common reasons to plant a cover crop. Try focusing on your own objectives when creating a planting plan. The [SD Cover Crop Poster](#) lists most common South Dakota cover crops and their purpose ratings, seeding rates, and seeding depths.
- 4) **Seed availability and price.** As cover crops seed is in high demand this year, the seed of some popular forage cover crop species could be in scarce supply and may have risen in price due to demand. This is important to take into consideration before choosing a mix. Although most producers want to keep costs low, do remember that forage crops and/or improved soil health does come at a price, and some investment will be necessary.
- 5) **Crop rotation.** Keep your previous crop and intended crop for 2020 in mind; it is generally recommended to plant cover crops of diverse growth habit to the subsequent cash crops, i.e., primarily broadleaves prior to grass cash crops, and vice versa.
- 6) **Termination.** Many cover crops will winter kill for the most part. However, some species may over winter such as cereal rye, winter wheat, triticale, etc. and/or have seed that can stay dormant for a prolonged period (hard seed) such as some ryegrass and vetch. This does not eliminate these crops as an option; it simply requires prompt spring attention and management as these crops may be of great value to utilize excess moisture in a potentially wet spring.
- 7) **Weed Control.** Often times, if a diverse cover crop mix is planted, it is nearly impossible to chemically control weeds during the growth of the cover crop. If a mix is well-planned and grown under ideal growing conditions, this is not typically an issue. However, if a particular weed is of concern, this should be considered before selecting cover crops. Winter rye is known for its inherent allelopathic characteristics, i.e. its ability to suppress weeds by the production of a biological chemical substrate that is harmful to other surrounding species; however, other grasses as well as sprawling or more ground covering broadleaf crops (such as vetches, or radish and turnip) can aid in weed suppression by keeping soils covered.

- 8) **Soil Fertility.** If a producer is intending to use the cover crop as forage, nitrogen application may be required. Consider previous crop credits if legumes were planted, and current soil test levels. In many situations, low nitrogen application rates (30-60lbs/a) will provide considerable growth for cover crops; it is important to apply the appropriate rate of nitrogen when planting for forage purposes to avoid nitrate buildup in the plant which may cause toxicity to animals. Check the [South Dakota Fertilizer Recommendations Guide](#) for suggested soil fertility guidelines for major South Dakota crops.
- 9) **Planting time.** As most cover crops are grown in blends, it is difficult to establish an exact seeding date based on individual crop species. However, there are suggested planting timing windows for crop types based on the proportion of different cover crops species in the blend. Cool season cover crops such as small grains, peas, clovers, vetch, and brassicas should be planted near or around the third week of July as average daily temperatures tend to decrease due to lower night temperatures; this creates a better growing environment for cool season species. On the other hand, warm season species (forage sorghums, sorghum-sudangrass, buckwheat, sunflower, and teff grass, etc.) can be planted prior to the third week of July, but ideally no later than the first week of August. Typically, these crops are planted in June, but delayed and prevented planting of row crops may have predetermined an early July planting. When planted within these suggested guidelines, cover crops should have ample growth to be harvested for forage after September 1. Remember that due to growth habit, some species in the mix may mature faster than others, which should not inhibit forage harvest.

Although there are many factors to take into consideration, cover crops can be an excellent tool to mitigate the challenging planting season. Cover crops not only reduce fallow acres but also enhance soil health and provide supplemental forage. For more information, please do not hesitate to contact your nearest SDSU Regional Extension Center or local NRCS office for cover crop recommendations and other assistance.

Resources:

bit.ly/SDCoverCrops