

## **SOUTH DAKOTA - Fall Silage Harvest of Experimental Forage Blends**

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The South Dakota State University Plant and Dairy Science Departments are working on a novel approach to develop blend(s) of specific crops grown in combination which offers livestock producers the opportunity of supplying additional nutrients in the ration in the form of forages.



Currently being evaluated is an inter-cropping system between a new variety of soybean that grows like a vine and a new grazing corn hybrid. The soybean and corn seed were sown in alternate lines or mixed to sow so that the vining soybean grows by climbing and wrapping itself around the corn plant. Since soybeans belong to the legume family, the plants can actually fix N in the soil that would benefit the corn. In addition, soybean plants harvested as haylage are high in CP (~20%) and can be very digestible.



The grazing corn hybrid being evaluated is MasterGraze, which is a high sugar corn that will not produce an ear, will be higher in CP (~14%) than normal corn silage, and is a high energy (high sugar) and protein corn plant that will readily ensile. Thus, the combination of soybeans and grazing corn could/will result in the production of a forage blend that is high in both protein and energy. This forage blend has the potential to reduce the cost of growing dairy and beef heifers, beef steers, beef cows, and dairy cows in the dry period by reducing or eliminating protein and energy supplementation (i.e., soybean meal and corn).

Plans will be formulated for spring planting to evaluate the different planting ratios of vine soybeans and corn that would optimize nutrient composition for livestock. The goal of this project is to develop new forage blends that will meet the nutrient requirements of beef and dairy cattle, while reducing the cost to grow animals for the production of meat and milk.