County Agent News Dan Folske March 14, 2016

Annual Forages

Combinations of cool season grass crops and legumes are a good bet. Pea-oat and peabarley mixes out yielded straight pea, oat, or barley crops when cut for hay.



Trials conducted at the Carrington Research and Extension Center over a four year period found a significant yield increase over oats for hay or barley for hay grown on low nitrogen testing soils and no N fertilizer was applied. Instead peas were added to the grass crop. An additional benefit was an approximate 3% increase in forage protein.

Haybet forage barley averaged 1.78 tons of dry matter per acre and 9.7% crude protein over the measured trials. Haybet forage barley and peas averaged 2.18 tons of dry matter and 13.6% crude protein. Oat alone also averaged 1.78 tons dry matter per acre with a slightly lower crude protein averaging 9.4%. Oat pea mixes averaged 2.17 tons of dry matter per acre and 12.5% crude protein.

Forage mixtures were seeded at 800,000 pure live seeds per acre for the cereal grains and 200,000 pure live seeds per acre for the peas. The number of seeds per bushel can vary quite a bit and germination rates also vary and should be adjusted for. Using averages for these numbers would indicate approximated bushel seeding rates of 1.67 bu of oats per acre or 1.5 bu of barley per acre when seeding with peas as an annual forage. Arvika field peas average 4000 seeds per pound so it would take about .9 bu per acre. These are the seeding rats used in these trials. Please remember that this was not a seeding rate trial.

A similar trial done in South Dakota had reduced yields when combing peas and cereal grains compared to oats or barley alone. However, feed quality was increased substantially when the peas were added. This is a very important factor, especially when foraged havest is delayed for maximum yield. The available information for this trial did not specify if any nitrogen fertilizer was added.