Cover crop trials a success in North Idaho

AT A GLANCE
The cover crop trials demonstrate the opportunities, benefits and challenges of using cover crops in rotations and as a grazed forage.

The Situation
that includes a spring seeded crop at set intervals determined by the land owner. These spring seeded crops can be variable in regards to production and economic return.

Farmers in the region were in need of an alternative spring crop that would improve soil health, break disease and insect cycles, add nutrients back into the soil and maintain or increase profits. In addition, farmers that also have a cattle enterprise or have neighbors in the cattle business were in need of finding an abundant source of high quality forage during the months of August and September due to declining forage quantity and quality on surrounding pasture and rangelands.

Our Response
To address the need for an alternative spring crop that would double as cattle forage, Ken Hart, Doug Finkelnburg and Jim Church with the University of Idaho Extension along with Kevin Seitz and Vern McMaster with the Natural Resources Conservation Service initiated a cover crop trial in the spring of 2013. Drew Leitch, a farmer and rancher from Lewis County, agreed to cooperate on a trial that analyzed four cover crop treatments with a number of different crops in each treatment.

The three treatments included the following:
1. Nitrogen mix (spring lentils, common vetch, spring forage peas, rapeseed and flax).
2. Grazing mix (common vetch, spring forage peas, crimson clover, spring oats, spring barley, pearl millet, rapeseed, turnips and radishes).
3. Soil enhancement mix (clover, soybean, winter peas, hairy vetch, spring peas, spring triticale, spring barley, pearl millet, oats, turnips, radish, rapeseed, mustard, sunflower and buckwheat).
4. No cover crop (chemical fallow, control).

The trial would be seeded in early spring and grazed using yearling cattle starting in early August. The grazing system would be an intensive grazing system with small paddocks and frequent moves. The stocking rate would be at 1.5 AUM’s per acre.

Cattle performed well grazing high quality spring seeded cover crops in mid to late summer.
The field where the plots were located would be planted back to winter wheat in the fall. Yield data would be collected the summer of 2014.

Program Outcomes
The cover crop trials were successful. All three of the seeding mixtures (treatments) produced an abundant supply of high quality forage. Estimated yield of dry matter per acre was 3000 pounds. Forage analysis conducted on the three treatments showed an average Crude Protein content of 10.3% and a TDN content of 52.8% at the time that the cattle were grazing the forage. Which is significantly higher than area pasture grasses during the month of August.

Cattle performance while grazing the cover crops using an intensive grazing system with small paddocks and frequent moves was acceptable. The cattle gained on average 1.4 pounds per day while grazing the cover crops.

The wheat yield in the area of the field where the three treatments were located showed no significant differences compared to the yield of the surrounding field and the check strips.

The Future
A new trial was conducted in the summer of 2014. This new trial is analyzing the ideal seeding date for spring planting of cover crops and what species are best suited for the area and in what seeding combinations.

Adoption of cover crops and cover crop grazing
In 2013, Drew Leitch our trial cooperator, was the only producer that was utilizing this technology. Due to the success of this trial, in 2014, eleven producers planted cover crops and grazed the forage produced. Forage produced in 2014 on one farm showed an estimated yield of 4 tons per acre and the cattle gained at over 2 pounds per day. Several more producers have indicated their intention to plant and graze cover crops in 2015.