

Spring forage trials conducted on the Camas Prairie

AT A GLANCE

Camas Prairie forage growers and beef cattle producers were in need of information on spring planted forage crops that would produce high quality, high yielding forage.

The Situation

Beef cattle rank in the top two for gross farm gate receipts in the five-county region of north central Idaho with \$37 million in sales, according to the latest Census of Agriculture for Idaho. Closely tied to the cattle industry is the production of hay and other forages that are fed to cattle throughout the year. One cannot have cows without hay.

Producing high quality hay is a big challenge for growers in this area. Most years the forage is at its optimum quality in early June and should be harvested at this time. However, the weather is usually wet at that time of year and hay harvest is postponed until late June or early July when drying conditions are favorable. Protein and energy levels are thus lower due to grasses and legumes being at a more mature growth stage.

Our Response

University of Idaho Extension educators Jim Church, Doug Finkelnburg and Ken Hart developed and conducted research trials analyzing various spring planted crops for hay and forage production. The research trials were planted in the spring of 2018 and again in the spring of 2019 at Joe Chicane's farm near Grangeville and Mart Thompson's farm near Nez Perce.



Jim Church and Doug Finkelnburg weigh forages in a field trial located in Idaho County.

Program Outcomes

Several spring-seeded forage crops were identified and seeded in the trials to be tested. The species seeded in 2018 and 2019 included:

- Otana Oats
- Proleaf 234 Oats
- Everleaf 114 Oats
- Everleaf 126 Oats
- NZA 4.41 Oats
- Haybet Barley
- Stockford Barley
- Proso Millet

- German Millet
- Stockford Barley/Flex Peas Mix

Yield results are listed as dry matter produced. Results from 2018 and 2019 showed differences in yield for various species and in general the tonnage was acceptable but not outstanding.

Results also indicated that crude protein levels were all higher than the levels seen with average grass hay produced on the Camas Prairie except for Haybet Barley which was at about the same level. Table 1. provides information on the varieties tested, the 2018 and 2019 combined yield (dry matter basis) from both the Idaho County and Lewis County test plots and the crude protein from each variety.

The Future

In summary, it appears from the 2018 and 2019 results, that spring planted forage crops will be a viable option for forage growers to produce higher quality hay and or forage for grazing than the typical straight grass hay grown in the area. There are new oat varieties that are promising, the mix with Flex peas looks really good and the warm season millet will provide late season hay and grazing opportunities. Plans are to repeat this trial again in the spring and summer of 2020.

Table 1. North Central Idaho Spring Forage Trial — Yield and Protein Results

2018-2019 Spring Forage Test Plot Results (Three Site Years)			
Variety	Combined Avg Yield	*	Crude Protein %
Haybet Barley	2.92	A	8.1
Stockford Barley	2.38	B	9.7
Stockford Barley/Flex Peas	2.35	B	10
Otanus Oats	2.24	BC	10.5
Proleaf 234 Oats	2.21	BC	10.2
Everleaf 126 Oats**	2	CD	10.2
Everleaf 114 Oats**	1.88	D	10.6
NZA 4.14 Oats**	1.87	DE	10.8
Proso Millet	1.6	E	9.9
German Millet	1.27	F	10.2
LSD (.05)	.27		1
CV(%)	15		12.1

*Entries with different letters significantly differ in yield at (.05).

**Yields depressed due to selective wildlife grazing pressure.

FOR MORE INFORMATION

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