Wheatland Conservation Area Inc.

P.O. Box 2015, Swift Current, Saskatchewan. S9H 4M7
Ph. # (306) 773-4775

Increased Stubble Heights and Soil Moisture

The project looks at conserving moisture in Southwestern Saskatchewan by increasing stubble heights. Higher stubble will be left standing using a stripper header and compared to stubble from standard harvesting equipment. These higher stubbles should catch more snow in winter and reduce evaporation rates, resulting in increase spring soil moisture and better crop development early in the growing season. If producers could increase soil moisture by increasing stubble height, the practice would be widely adopted.

Lack of moisture is normally a limiting factor to crop production in most of Saskatchewan, especially in the Southwest, however for the past few years, this was not the case. In fact many producers were not able to get crops seeded due to excess soil moisture. Due to the excess moisture last fall and this spring, soils were saturated regardless of previous stubble height and no differences were found. We were able to get snow depth measurements during the winter and this data may prove to be very useful in the future. In every case, the taller the stubble was, the more inches of water available.

Crop	Method of Harvest	Stubble Height (in)	AVG snow Depth (in)	Water Equiv (in)	
Pea	Stripper Header	12.6	10.08	2.94	
Pea	Conventional Header	8.66	6.69	1.95	
Lentil	Stripper Header	9.84	6.77	1.98	
Lentil	Conventional Header	4.33	3.15	0.92	
Durum	Stripper Header	29.13	22.36	6.53	
Durum	Conventional Header	12.5	9.74	2.84	
Flax	Stripper Header	23.62	20.94	6.11	
Flax	Conventional Header	9.5	6.73	1.96	
Fallow	N/A	0	2.83	0.83	

Acknowledgements

This project was funded through the Saskatchewan Ministry of Agriculture ADOPT program.

Pictures

Conventional Header Stubble

Stripper Header Stubble