

USDFRC Field Operations Report

for 2005

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The 2005 crop year began with fairly cool but very dry conditions during April. This allowed for some very good planting conditions for alfalfa, corn and soybeans. Corn planting started on April 18 and was 80 percent completed by April 28. Typically we start planting corn around the 24th of April.

A fairly open winter and some very cold temperatures in late December of 2004 produced some scattered winter kill in alfalfa. No stands were complete losses, but small pockets of total winter kill were evident in most fields. The cool temperatures in spring slowed alfalfa growth, but plants seemed to recover from the winter stress and produced reasonable first-crop yields. For our second year we utilized a custom operator to help harvest the first and second alfalfa crops. This was done in part to facilitate a study to evaluate the impact of storage structure type on dry matter losses and feed quality.

For corn, the early planting was followed by some frequent rain in mid May and a dry June. Temperatures in July and August were quite hot. The pattern of rain and high temperatures helped the corn plants to develop an extensive root system that was needed to obtain water. A few timely rains really helped to prevent yield losses and to produce the highest average corn grain yield (194.9 bushels/acre) at the research farm. Soybean yields were good as well, but I think they had some yield loss due to dry periods that did not impact the corn as much.

The big weather event for the 2005 season was a series of tornadoes that hit the Badger Army Ammunition Plant (BAAP) where many of our fields are located. Three buildings that we had planned to use for storage, several hundred trees, and several acres of corn sustained damage from these tornadoes. One field of corn was completely flattened by a tornado and most of the corn for silage was damaged to varying degrees. We were unable to harvest several acres of alfalfa because the fields were littered with downed tree limbs and building materials. Most of the damage occurred in rather open areas and the main farm buildings were not impacted by the tornado and, most fortunately, no one was injured.

A new agronomy research plot area is being developed on the far west side of the BAAP. An irrigation system has been installed, and future plans will provide storage space for equipment and samples, as well as additional work space. Planning and design of a manure pumping facility has also taken place. When completed, manure will be pumped from the storage pit at the farm to a temporary holding tank inside the BAAP fence. From there, trucks will be able to load and go without having to cross a busy highway or be stopped to wait for a gate to open. We have added a 7,500 bushel storage bin for roasted soybeans, along with a cooling system and augers. This serves as a completely automated system for roasting soybeans.

Ron Lipka and John Wesolowski, two previously retired full-time employees who returned to work as

Table 1. Precipitation (inches) for 2005.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2.05	1.38	1.66	0.65	3.07	1.06	4.90	2.14	2.75	0.85	3.37	0.58

Table 2. Planting and harvesting dates for 2005.

Crop	---Planting---		--Harvesting--	
	Start	Finish	Start	Finish
Oats	4/19	4/19	6/22	6/22
Corn	4/18	5/06	9/23	10/28
Soybeans	5/03	5/20	9/21	10/28
Corn silage			9/07	9/21
Oats f.b.* sorghum	7/01	7/01	8/20	10/10
Alfalfa f.b.* sorghum	6/10	6/10	8/08	10/03
Alfalfa	4/11	4/18	5/29	10/11
Winter wheat	10/05	10/08	7/11	7/18

*followed by

limited-time employees, have decided to finally and fully retire. Both Ron and John have been excellent employees. John is moving to the Wausau area to be closer to family. Ron just wants to take it easy for a change. I and fellow employees very much appreciated the excellent work and good friendship from Ron and John. Some of us will also miss Ron's sometimes colorful wardrobe and his barely successful attempts as a comedian. We wish them both the best.

Overall, 2005 was a good year in terms of research projects supported and completed, and in terms of the amount and quality of feed and bedding produced for the dairy operation. It was also the year we celebrated with our Sauk County neighbors to mark the transfer of xx acres from the BAAP to the U.S. Dairy Forage Research Center. Our accomplishments are possible because of the efforts of our employees; we appreciate their work and thank them for it.

Table 4. Crop yield data for 2005.

<u>Crop</u>	<u>Acres</u>	<u>Yields</u>			
		<u>Low</u>	<u>High</u>	<u>Mean</u>	<u>Total</u>
		-----Bushels per acre-----			
Winter wheat	90.5	76.7	77.4	76.9	6,961
Soybeans	347.3	47.6	71.0	62.3	21,636
Corn grain +	354.1	148.7	231.4	194.9	69,027
		-----Tons DM per acre-----			
Corn silage – DM basis	161.5	6.9	9.8	7.2	1,163
(Corn silage -- as is basis)	(161.5)	(22.1)	(30.5)	(22.0)	(3,557)
Alfalfa, established ++	260.3	2.9	5.49	4.5	1,165
Alfalfa, seeding year	110.2	0.6	2.1	1.8	202
Oats	20.0			1.6	30.4
Sorghum after alfalfa	22.0			3.0	67.4
Sorghum after oats	20.0			2.0	38.6

+ 24,563.5 bushels (896.6 tons wet) harvested as high moisture cracked shell corn.

++ The 22.4 acres of alfalfa followed by forage sorghum is not included in this data (it produced 1.3 tons DM per acre).

Alfalfa yields were not adjusted for DM that was chopped back to fields. If there was no DM harvested from a particular cutting, a zero yield was recorded for that field and was included in the average yield for that field.

Table 3. Alfalfa cutting dates for 2005.

<u>Cutting</u>	<u>---Established Alfalfa---</u>			<u>---Seeding-Year Alfalfa---</u>		
	<u>Acres*</u>	<u>Start</u>	<u>Finish</u>	<u>Acres*</u>	<u>Start</u>	<u>Finish</u>
First	283	5/29	6/01	110	6/20	6/21
Second	260	6/26	6/28	28	7/18	7/19
Third	182	7/27	7/29	91	8/22	8/31
Fourth	283	8/21	8/31			
Fifth	78	10/09	10/09			

* Indicates actual acres harvested. After first harvest, 22 acres were planted to BMR forage sorghum. Rainy weather prevented the harvest of 78 acres of third crop established alfalfa and 82 acres of second crop seeding-year alfalfa. Unharvested alfalfa was chopped back into fields. A tornado scattered building debris and trees in 19 acres of third crop seeding-year alfalfa leaving it unharvestable.