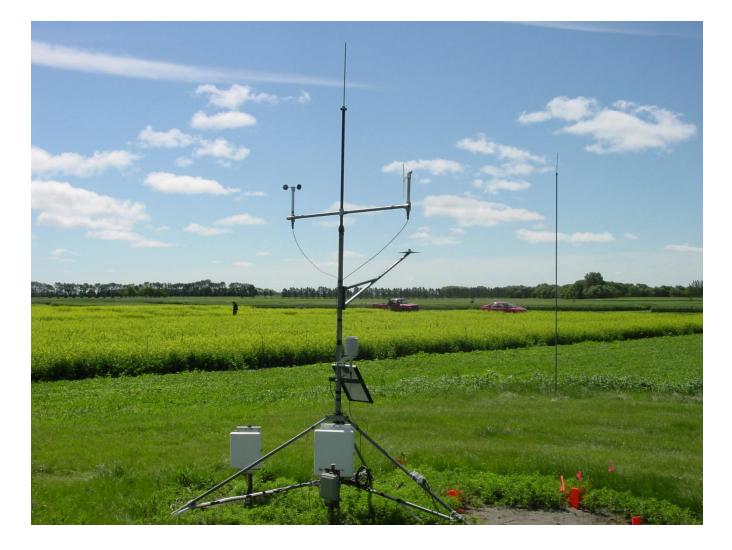
#### SERVICES OF THE NORTH DAKOTA AGRICULTURAL WEATHER NETWORK TO THE AGRICULTURAL SECTOR

Adnan Akyüz, Ph.D. State Climatologist Associate Professor of Climatological Practice, North Dakota State University, Fargo, ND

> AMS Applied Climate: 2014 Westminster, CO

## A TYPICAL NDAWN STATION



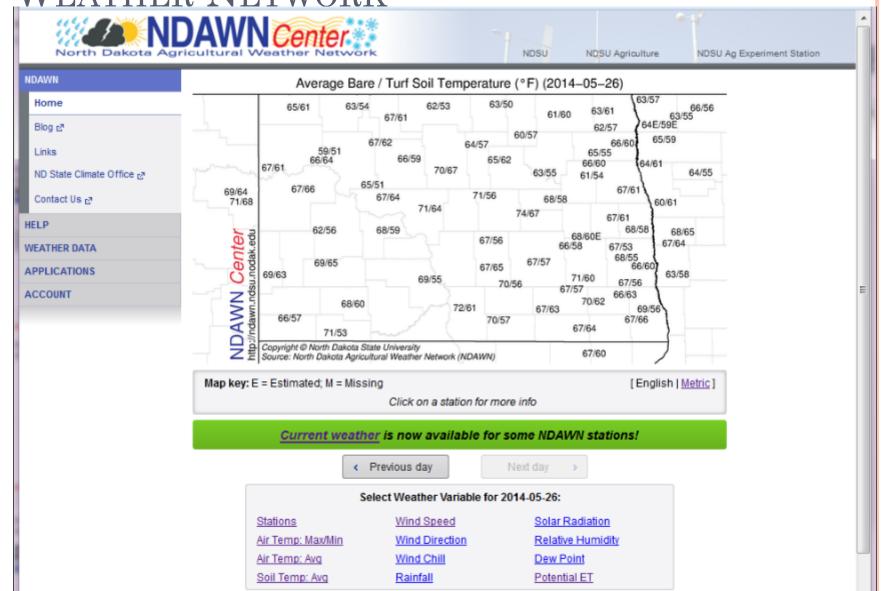
#### **ORGANIZATIONAL STRUCTURE** • NDSU>CAFSNR>AES>NDAWN Director Products and Network Network Services Programmer Dallas Darvl Barb Mullins Morlock

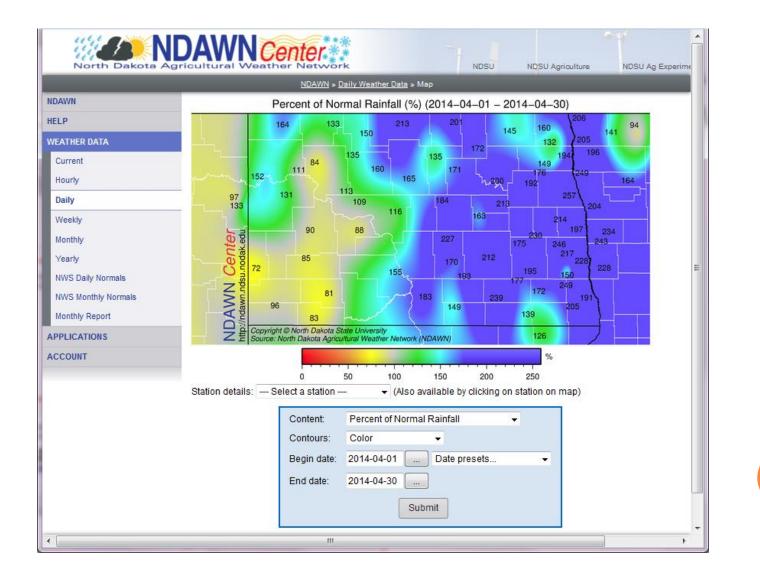
## http://ndawn.ndsu.nodak.edu/

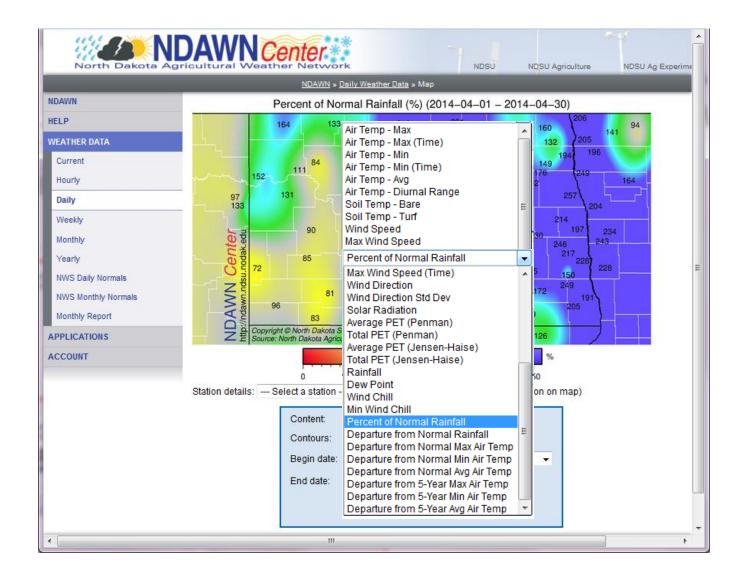
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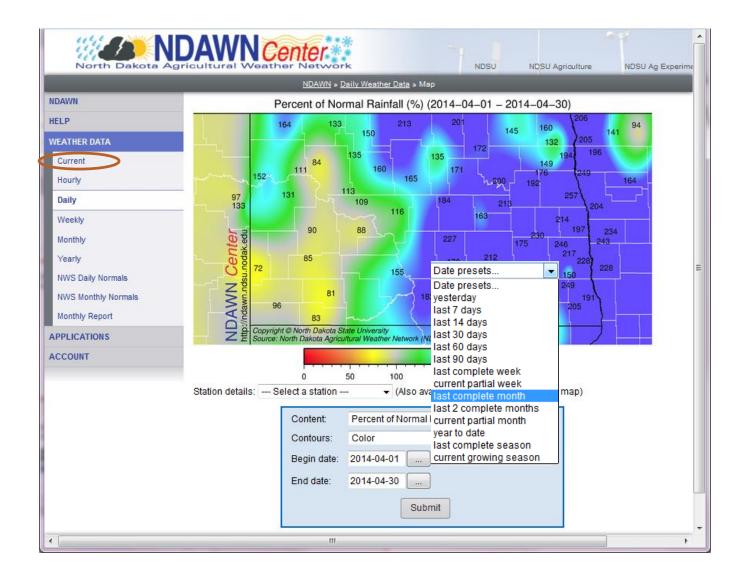
	ndawn		٩	•
v	Web Shopping Videos News	Images More <del>-</del> Search tools		Ξ
	About 24,400 results (0.54 seconds)			
n le	NDAWN - North Dakota Agricultu ndawn.ndsu.nodak.edu/ ▼ North Dakota State oading map. Map key: Station Name 9S = 9 Mile more info. Current weather is now available for so	University 👻 es South of Town. Click on a station for		
	NDAWN Daily Weather Data Daily Weather Data. Get more information about data	Corn Growing Degree Days Corn Growing Degree Days. Get information about corn growing		
	Soil Temp Air Temp: Avg · Wind Chill · Dew Point · Soil Temp: Avg · Rainfall	Fargo 2014 Sponsors of Fargo station: Cass County Weed Control		
	Current Weather Station names link to the station's current weather page designed	NDAWN Hourly Weather Data Hourly Weather Data. Get more information about data		
	More results from nodak.edu »			-

APPLICATIONS Dickinson 1NW Beach 9S Mandan 2S Streeter 6NW Fingal 4W Leonard 5N	NDAWN	NDAWN Station Locations (2014–05–26)
Map key: Station Name 9S = 9 Miles South of Town       Click on a station for more info         Current weather is now available for some NDAWN stations!       Next day         <       Previous day       Next day         Select Weather Variable for 2014-05-26:       Select Weather Variable for 2014-05-26:	Blog ମ Links ND State Climate Office ମ	Crosby 75 Bowbeils 1N Bottineau 14W Rolla 2S Mohall 1W Cando 2SE Cavalier 6SW Humboldt 4S Cando 2SE Grafton 10E Stephen 1NE Hofflund Minot 4S Baker 1N Forest River 7WNW Williston 5SW Watford City 2E Plaza 10S Sidney 1NW Plaza 10S Garrison 13NW Harvey 2SW McHenry 8N Eldred 2W Eldred 2W
Select Weather Variable for 2014-05-26:		
		Air Temp: Max/Min Wind Direction Relative Humidity









North Dakota							_	N	DSU	ND	SU Agricul	ture N	NDSU Ag Expe	riment Station
IDAWN	_			NDAWN	I » Current	t weather								
NDAWN	Current	Weather												
HELP	Show inform	nation												
WEATHER DATA					Last 10	Minutes								
Current			A		A			Avg	Avg	V	Tederde	Today's	Today's	Today's
Hourly			Avg Air	Avg Wind	Avg Wind	Max Wind	Avg Rel	Dew Point	Bare Soil	Total	Today's Total	Max Air	Min Air	Max Wind
Daily	Station	Last Updated \$	Temp \$	Dir	Speed \$	Speed \$	Hum ¢	Temp \$	Temp \$	Rain ¢	Rain \$	Temp \$	Temp \$	Speed \$
Weekly	Baker	• 27 May 09:50 CDT	72°		7 mph	9 mph	60%	58°	62°	0.00"	0.00"	73° (09:49)	57° (05:42)	
Monthly	Beach	• 27 May 09:50 CDT	63°	WNW 🦶	8 mph	12 mph	88%	59°	62°	0.66"	0.94"	63° (09:40)	56° (04:03)	37 mph (03:53)
Yearly	Berthold	• 27 May 09:50 CDT	67°	w /	18 mph	23 mph	70%	56°	61°	0.00"	0.00"	67° (09:48)	53° (04:56)	
NWS Daily Normals	Bottineau	• 27 May 09:50 CDT	66°	ESE 🥎	7 mph	9 mph	81%	60°	59°	0.61"	0.00"	67° (09:49)	55° (06:11)	
NWS Monthly Normals	Bowbells	• 27 May 09:50 CDT	70°	WNW L	18 mph	21 mph	61%	56°	59°	0.00"	0.00"	70° (09:49)	52° (05:23)	
Monthly Report	<u>Bowman</u>	• 27 May 09:50 CDT	66°	WSW 🛩	8 mph	10 mph	81%	60°	61°	0.00"	0.49"	67° (01:00)	56° (05:59)	33 mph (04:31)
APPLICATIONS	Britton	• 27 May 09:50 CDT	74°	sw 🗸	4 mph	7 mph	66%	62°	65°	0.00"	0.00"	74° (09:44)	56° (05:27)	
CCOUNT	Brorson	• 27 May 09:50 CDT	64°	WNW 🧠	6 mph	10 mph	81%	58°	64°	0.00"	0.01"	64° (09:18)	57° (01:39)	11 mph (04:39)
	Cando	• 27 May 09:50 CDT	68°	ssw 🗸	4 mph	7 mph	74%	59°	59°	0.00"	0.23"	68° (09:49)	56° (06:40)	
	Carrington	• 27 May 09:50 CDT	74°	sw 🏑	11 mph	16 mph	57%	58°	69°	0.00"	0.00"	75° (09:50)	59° (04:32)	21 mph (04:40)
	Crary	• 27 May 09:50 CDT	72°	s	8 mph	10 mph	58%	56°	63°	0.00"	0.00"	72° (09:43)	58° (05:43)	
	Crosby	27 May 09:50 CDT	61°	wnw <	12 mph	17 mph	78%	54°	60°	0.00"	0.00"	63° (09:00)	57° (01:59)	
	Dazey	• 27 May 09:50 CDT	74°	SE 🔨	3 mph	6 mph	53%	56°	62°	0.00"	0.00"	75° (09:49)	55° (06:25)	9 mph (04:38)
	Dickinson	27 May 09:50 CDT	63°	w 🖵	10 mph	14 mph	81%	58°	62°	1.31"	0.20"	64° (09:38)	58° (01:37)	24 mph (05:13)
	<u>Dunn</u>	• 27 May 09:50 CDT	62°	NW <	8 mph	11 mph	88%	59°	58°	2.37"	0.02"	62° (09:43)	57° (05:01)	
	Edgeley	• 27 May 09:50 CDT	74°	s _	6 mph	9 mph	59%	59°	65°	0.00"	0.00"	75° (09:49)	55° (06:14)	
	<u>Ekre</u>	• 27 May 09:50 CDT	73°	SW O	3 mph	5 mph	68%	62°	64°	0.00"	0.00"	73° (09:49)	57° (06:29)	7 mph (04:04)
	Fargo	27 May 09:50 CDT	74°	лим Г	3 mph	5 mph	66%	61°	65°	0.00"	0.00"	74° (09:49)	55° (06:10)	
	<u>Fingal</u>	• 27 May 09:50 CDT	77°	SSW O	2 mph	4 mph	51%	57°	66°	0.00"	0.00"	77° (09:48)	56° (04:38)	11 mph (01:09)
	Forest River	27 May 09:50 CDT	71°	ENE —	3 mph	5 mph	62%	57°	64°	0.00"	0.00"	71° (09:49)	54° (06:11)	
	Galesburg	• 27 May 09:50 CDT	74°	NNW X	5 mph	6 mph	56%	58°	63°	0.00"	0.00"	75° (09:49)	53° (06:00)	
	Garrison	😑 27 May 08:30 CDT	63°	WSW 🔟	15 mph	19 mph	80%	57°	61°	0.06"	0.00"	67° (01:24)	56° (06:19)	
	Harvey	• 27 May 09:50 CDT	72°	WNW <	13 mph	20 mph	54%	54°	65°	0.00"	0.00"	73° (09:32)	62° (04:07)	20 mph (09:44)
	Hazen	27 May 09:50 CDT	65°	NW <	14 mph	19 mph	79%	58°	61°	0.34"	0.30"	67° (04:41)	59° (06:17)	
	<u>Hettinger</u>	• 27 May 09:50 CDT	67°	SSW O	3 mph	5 mph	73%	58°	63°	0.00"	0.34"	67° (09:34)	56° (06:28)	37 mph (01:45)
	Hofflund	27 May 09:50 CDT	65°	w 🖵	10 mph	13 mph	79%	59°	62°	0.00"	0.00"	65° (09:49)	54° (04:31)	
	Humboldt	27 May 09:50 CDT	64°	SSE 🔪	7 mph	9 mph	73%	55°	60°	0.00"	0.00"	64° (09:47)	53° (05:48)	

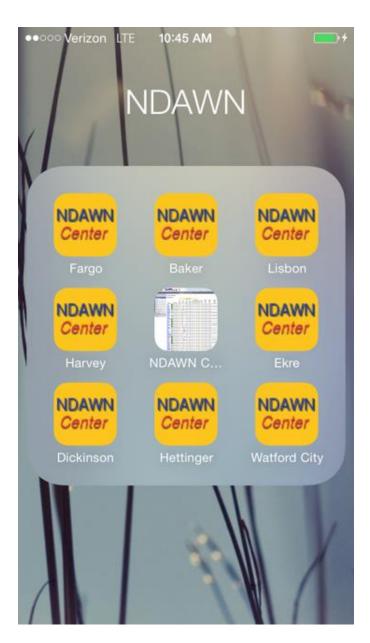
#### FARGO CURRENT WEATHER

Fargo, Cass	County, ND
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Last update: 10:30 AM (	CDT on 27 May 2014
Yesterday's Total Rain	0.00 "
Today's Total Rain	0.00 "
Today's Max Air Temp	76 °F at 1025
Today's Min Air Temp	55 °F at 0610
Today's Max Wind Speed	mph
Last 10 minutes (10:20 /	AM - 10:30 AM CDT):
Avg Air Temp	76 °F
Avg Wind Direction from	252 ° (WSW)
Avg Wind Speed	3 mph
Max Wind Speed	6 mph
Avg Relative Humidity	62 %
Avg Dew Point Temp	62 °F
Avg 4" Bare Soil Temp	68 °F

NDAWN CenterDisclaimerNorth Dakota State UniversityThis page is updated every ten minutes<br/>during daylight hours.

## MOBILE VERSION



## NDAWN AGRICULTURAL APPLICATIONS (WHEAT)

	NDAWN » Wheat Growing Degree Days
AWN LP	Wheat Growing Degree Days / Growth Stages and Midge Degree Days
ATHER DATA	Get information about wheat growing degree days
PLICATIONS	Get information about wheat midge c <sup>3</sup>
Barley GDD	
Canola GDD	Table Map
Canola Sclerotinia 🗗	Stations: Show departures from:
Corn GDD Potato Late Blight Sugarbeet Cercospora Sugarbeet Cercospora Summaries Sugarbeet Herbicide Timing Using GDD Sugarbeet Root Maggot Sugarbeet GDD Sugarbeet GDD Sugarbeet GDD Multiple Planting Dates Sunflower GDD	Ada, MN 1N (2007-)         Baker 1N (1993-)         Beach 9S (1993-)         Berthold 5NW (2001-)         Bismarck 6NE (1994-1999)         Bottineau 14W (1993-)         Bowbells 1N (2001-)         Bowman 4W (1993-)         Britton, SD 2E (1998-)         Brorson, MT 5NW (1995-)         Cando 2SE (1994-)         Carrington 4N (1990-)         Select all    Get table
Wheat GDD/Midge DD Wheat GDD Multiple Planting Dates Wheat & Small Grains Disease Forecaster 27 Crop Water Use	
rrigation Scheduler	
rigation concouler	

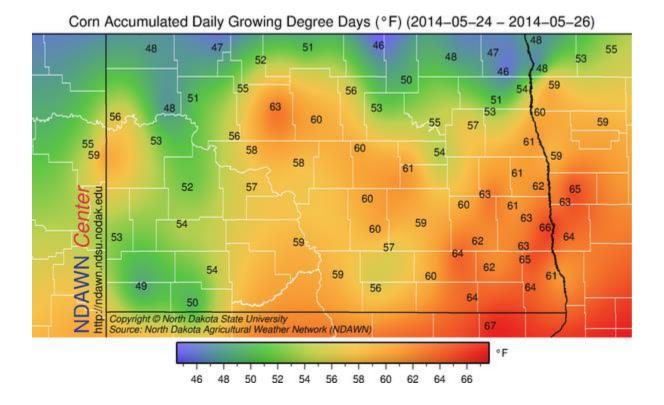
## NDAWN AGRICULTURAL APPLICATIONS (WHEAT)

North Dakota	DAWN Center	NDSU NDSU Agriculture NDSU Ag Experiment Station
	<u>NDAWN</u> » W	Vheat Growing Degree Days
NDAWN HELP WEATHER DATA APPLICATIONS	Wheat Growing Degree Days         and Midge Degree Days         Get information about wheat growing degree         Get information about wheat midge at the second sec	
Barley GDD Canola GDD	Table Map	
Canola Sclerotinia 🗗	Map type:	Time period:
Corn GDD Potato Late Blight Sugarbeet Cercospora Sugarbeet Cercospora Sugarbeet Herbicide Timing Using GDD Sugarbeet Root Maggot Sugarbeet GDD Sugarbeet GDD Sugarbeet GDD Sugarbeet GDD Multiple Planting Dates Sunflower GDD Wheat GDD/Midge DD	Wheat growing degree days (GDD): <ul> <li>Wheat GDD</li> <li>Wheat haun growth stages</li> <li>Normal wheat GDD</li> <li>Departure from normal wheat GDD</li> <li>Departure from: 2014 ▼</li> <li>Departure from 5-year avg wheat GDD</li> </ul> Midge degree days (DD):           Midge DD           Departure from normal midge DD           Departure from normal midge DD           Departure from s-year avg midge DD	Enter planting and end dates (YYYY-MM-DD): Planting date: 2013-05-01 End date: 2013-10-30
Wheat GDD Multiple Planting Dates Wheat & Small Grains Disease Forecaster 27 Crop Water Use Irrigation Scheduler Insect DD Heating/Cooling DD	Get m	пар

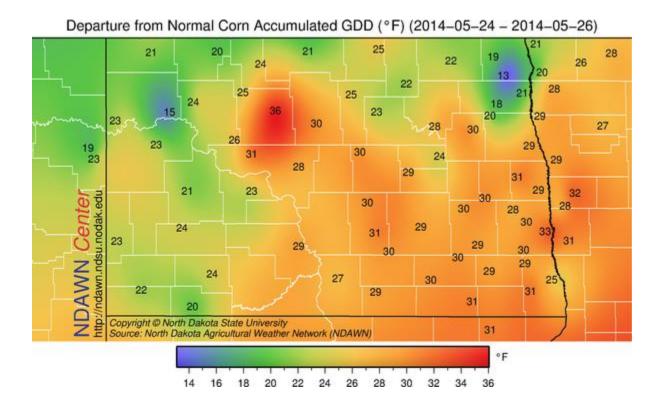
## NDAWN AGRICULTURAL APPLICATIONS (WHEAT)

	NDAWN » Wheat GDD Multiple Planting Dates
NDAWN	Wheat GDD Multiple Planting Dates
IELP	Get information about wheat growing degree days
WEATHER DATA	
APPLICATIONS	Stations: Time period: Ada, MN 1N (2007-)
Barley GDD	Baker 1N (1993-) Diantino dates and an end date
Canola GDD	Beach 9S (1993-) Berthold 5NW (2001-)
Canola Sclerotinia 🗗	Bismarck 6NE (1994-1999) Planting date 1:
Corn GDD	Bottineau 14W (1993-) Bowbells 1N (2001-) Planting date 2:
	Bowman 4W (1993-) Planting date 3:
Potato Late Blight	Brorson, MT 5NW (1995-) Planting date 4:
Sugarbeet Cercospora	Cando 2SE (1994-) Planting date 5:
Sugarbeet Cercospora Summaries	Cavalier 6SW (1993-) Planting date 6:
Sugarbeet Herbicide	Columbus 8S (1993-2001) Planting date 7:
Timing Using GDD	Crosby 7S (2002-) Planting date 8:
Sugarbeet Root Maggot	Dazey 2E (1993-) Planting date 9:
Sugarbeet GDD	Dunn 1SW (2009-) Planting date 10:
Sugarbeet GDD Multiple	Edgeley 4SW (1993-)  End date: 2014-01-28
Planting Dates	
Sunflower GDD	Get table
Wheat GDD/Midge DD	
Wheat GDD Multiple	
Planting Dates	
Wheat & Small Grains Disease Forecaster ⊉	
Crop Water Use	
Irrigation Scheduler	
2	
Insect DD Heating/Cooling DD	

#### NDAWN Agricultural Applications Corn GDD



#### NDAWN Agricultural Applications Corn GDD Departure from Normal



#### NDAWN IN THE NATIONAL SCOPE Verizon Powerful Answers - Smart Farming



## NDAWN: ECONOMIC IMPACT TO WHEAT AND BARLEY PRODUCERS

NDSU Extension Service	NORTH DAKOTA STATE UNIVERSITY	Tel. 701.231.8866
	Plant Pathology	Fax 701.231.7851 ndsu.extplantpath@ndsu.edu
	NDSU Dept. 7660 P.O. Box 6050 Fargo, ND 58108-6050	างบาบ.ag.ndsu.edu/extension
Jan. 10, 2012		
Dr. Adnan Akyuz School of Natural Walster Hall, NDS Fargo, ND 58108	SU	
Dear Dr. Akyuz:		
	omponent of the success at and barley producers.	

For example, in years and locations were risk of Fusarium head blight infection were high, as indicated by the disease forecasting web site, producers responded by timely use of effective fungicides for management, resulting in approximately \$26 million return/year to ND producers because of accurate risk prediction and appropriate fungicide use. In years when disease risk was low, as indicated by the models, producers saved millions of dollars in input costs.

NDAWN stations into a central computer that determines the disease risk, based on predetermined and extensively tested formulas that use the weather data as their critical components. The calculated risk is then made available in table and map format for each of the NDAWN weather locations. A producer can determine disease risk based on the nearest weather location; additional NDAWN stations would even improve risk assessments for new locations.

NDAWN data also is used to drive prediction models for other crop diseases, such as Sclerotinia (white mold) in canola and fungal blights in potato. NDSU Plant Pathologists find the NDAWN data critical for providing timely management information to producers on disease risk. It is a model system, and envied by many of my colleagues in other states. Thanks for the continued information provided by NDAWN.

Sincerely,

manie m/1 Melle

/Marcia McMullen, Extension Plant Pathologist

County Commissions, North Dakota State University and U.S. Department of Agriculture Cooperating NDSU is an equal opportunity institution

#### NDAWN: ECONOMIC IMPACT

Dear Dr. F. Adnan Akyuz,

American Crystal Sugar Company (ACSC) utilizes the NDAWN data for several applications that are designed to better inform our growers of the existing environmental conditions and to help target optimum timing for applications of herbicide, insecticides and fungicides.

ACSC designed a new "Pest Text Alert System" this past year that utilizes NDAWN data, applies parameters and sends a text message to growers, company staff and allied industry members. The pest alerts are designed to be an early warning system for the onset of pending disease and insect problems. The overall objective is to provide real time information to maximize effectiveness of pesticide applications. The following alerts are available:

Soil temperature for Rhizoctonia fungicide timing

Although it is important to consider the possible cost savings from using NDAWN data, the real benefit to our growers is the proper timing of pesticide applications to reduce the onset of insect and disease pressure. ACSC has identified \$78 million dollars net benefit by increasing control of root maggot flies, cercospora and rhizoctonia, but it is very difficult to attribute what percentage of the dollars is gained through the use of NDAWN data and our Pest Alert 6 at the Al Gateman and a second attribute what percentage of the dollars is gained through the use of NDAWN data and our Pest Alert 6 at the Al Gateman and a second attribute what percentage of the dollars is gained through the use of NDAWN data and our Pest Alert 6 at the Al Gateman attribute what percentage of the dollars is gained through the use of NDAWN data and our Pest Alert 6 at the Al Gateman attribute what percentage of the dollars is gained through the use of NDAWN data and our Pest Alert 6 at the Al Gateman attribute what percentage of the dollars is gained through the use of NDAWN data and our Pest Alert 6 at the Al Gateman attribute what percentage of the dollars is gained through the use of NDAWN data and our Pest Alert 6 at the Al Gateman at the second attribute what percentage of the dollars is gained through the use of NDAWN data and our Pest Alert 6 at the second attribute what percentage of the dollars is gained through the use of NDAWN data and our Pest Alert 6 at the second attribute what percentage of the dollars is gained through the use of NDAWN data at the second attribute what percentage of the dollars is gained through the use of NDAWN data at the second attribute what percentage of the dollars is gained through the second attribute what percentage of the dollars is gained through the second attribute what percentage of the dollars is gained through the second attribute what percentage of the dollars is gained through the second attribute what percentage of the second attribute what percentage of the dollars is gained thro

of NDAW starting po

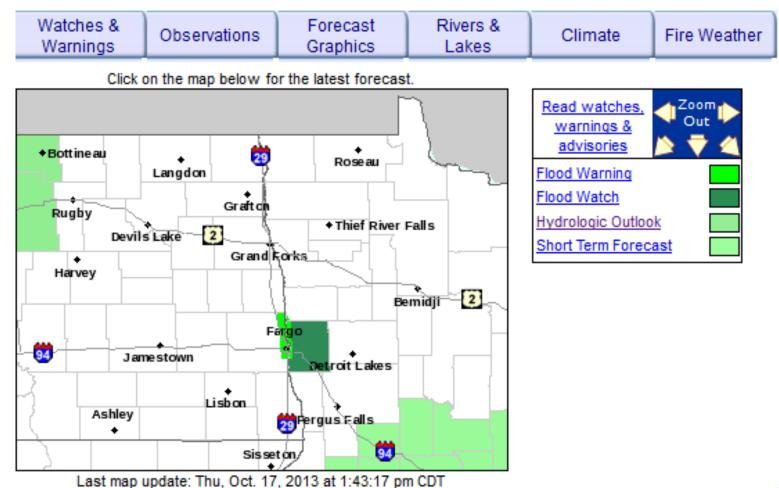
This	might	be	a	conservative	number

Thanks

Nick Arends American Crystal Sugar



## NDAWN: Public Safety



#### NDAWN: PUBLIC SAFETY NDAWN Center

NDAWN	Current	Neather					
HELP							
WEATHER DATA	Show informa	1001					
Current						Last 10 Mi	nutes
Hourly			Av	Avg	Avg	Avg	Max
Daily	Station	Last Updated	Aii Tem)	Wind	Wind Dir	Wind Speed	Win Spee
Weekly	+ Kennedy	¢ 08 Jan 15:00 CST		-34*	sl	¢ 11 mph	¢ 14 m
Monthly		08 Jan 15:00 CST     08 Jan 15:00 CST	-11"	-34	ESE	13 mph	16 m
Yearly	Bottineau	08 Jan 15:00 CST     08 Jan 15:00 CST	-11	-33	SSW /	9 mph	
NWS Daily Normals	<u>Rolla</u>	•			SE \		11 m
NWS Monthly Normals	Mohall	08 Jan 15:00 CST	-5*	-25*		11 mph	13 m
Monthly Report	Baker	08 Jan 15:00 CST	-6*	-24°	sj	9 mph	11 m
PLICATIONS	Galesburg	08 Jan 15:00 CST	-4° 0°	-22° -21°	s_	9 mph	10 m
CCOUNT	Berthold	08 Jan 15:00 CST	-4°		s J SE 🔨	15 mph	20 m
	Karlsruhe	08 Jan 15:00 CST		-21°	/	10 mph	12 m
	Marion	• 08 Jan 15:00 CST	-3*	-21°	s J	10 mph	12 m
	Robinson	08 Jan 14:50 CST	-4*	-21°	SSE \	8 mph	11 m
	Edgeley	• 08 Jan 15:00 CST	-2"	-20°	s	10 mph	13 m
	Jamestown	<ul> <li>08 Jan 15:00 CST</li> </ul>	-2°	-20°	s J	10 mph	12 m
	Bowbells	• 08 Jan 15:00 CST	1°	-19°	SSE >	15 mph	20 m
	Crosby	<ul> <li>08 Jan 15:00 CST</li> </ul>	4°	-19°	SSE ]	20 mph	23 m
	Garrison	<ul> <li>08 Jan 15:00 CST</li> </ul>	2°	-19°	SSE )	16 mph	20 m
	Hofflund	<ul> <li>08 Jan 15:00 CST</li> </ul>	0°	-19°	E	13 mph	16 m
	Lisbon	• 08 Jan 15:00 CST	-3*	-19°	sl	8 mph	10 m
	Michigan	08 Jan 15:00 CST	-3*	-19*	ssw _/	8 mph	11 m
	Ross	• 08 Jan 15:00 CST	1*	-19"	SSE )	15 mph	18 m
	St. Thomas	08 Jan 15:00 CST	-3"	-19"	SSE )	8 mph	9 m
	Fargo	• 08 Jan 15:00 CST	-4°	-18°	ssw ./	6 mph	8 m
	Wishek	08 Jan 15:00 CST	2°	-18°	SSE )	13 mph	16 m
	Ekre	<ul> <li>08 Jan 15:00 CST</li> </ul>	-5°	-17°	SSE \	5 mph	6 m

Forest River 

08 Jan 15:00 CST

Minot

Plaza

Linton

Tappen

Inkster

Oakes

08 Jan 15:00 CST

NDAWN » Current weather

Avg Avg

Dew Bare

Point Soil

22°

26°

Hum Temp Temp

Max

Wind

Speed

14 mph

16 mph

11 mph

11 mph

10 mph

20 mph

11 mph

13 mph

12 mph

20 mph

23 mph

20 mph

16 mph

10 mph

18 mph

9 mph 62% -13" 15°

8 mph

6 mph

11 mph

17 mph 20 mph 75%

6 mph 64% -11°

8 mph 69%

8 mph 10 mph

13 mph 17 mph

10 mph 13 mph

10 mph

5 mph

6 mph

-1° -17°

0° -17°

2" -17"

5" -16"

2" -15"

-2° -14°

-1° -14°

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11 mph 76%

16 mph 84%

12 mph 70%

12 mph 71%

Ανα

Rel

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72% -19\* 17°

72% -17\* 25\*

72% -16" 26"

69% -12° 21°

76% -6° 5°

72% -11° 21°

72% -9" 27°

67% -10° 22°

73% -5° 4°

80% -1°

82% -2°

77% -5° 22°

68%

86% -2\* 29\*

60% -14° 9°

68% -13° 28°

62% -11°

70%

80% -3\* 20\*

73%

72% -13°

-11°

-10° 28°

-11° 29°

-9\*

-2° 22°

-7° 15°

-2"

-5° 20°

-9°

24"

21°

13 mph 68% -13\*

Today's

Max

Air

Temp

ŧ

-5" (13:11)

-5° (14:57)

-5° (14:06)

-4° (14:41)

0° (14:59)

-3° (14:48)

-4° (14:49)

-1° (11:21)

-2° (14:16)

2° (14:57)

0° (14:59)

-3° (14:55)

-3° (14:42)

1" (14:59)

-3" (14:29)

-4° (14:36)

2° (14:58)

-4° (14:49)

0° (14:41)

1° (14:37)

2\* (14:59)

2° (14:44)

29" 5" (14:41)

23° -1° (14:49)

16° 0° (13:27)

11° 4° (14:58)

29° 2° (14:57)

7° -3° (14:44)

-10° (14:26) -34° (07:58)

-11" (14:51) -30" (08:10)

Today's

Min

Air

Temp

÷

-27" (06:25)

-26" (08:12)

-25° (06:31)

-20° (04:06)

-21° (04:36)

-29° (08:28)

-21° (07:12)

-25° (08:48)

-16" (08:07)

-19° (08:39)

-25° (00:52)

-27° (05:04)

-17° (03:06)

-24° (05:01)

-19° (08:10)

-21° (08:22)

-21" (05:07)

-22" (08:23)

-20° (08:19)

-15° (08:14)

-26° (08:25)

-21° (00:10)

-20° (08:20)

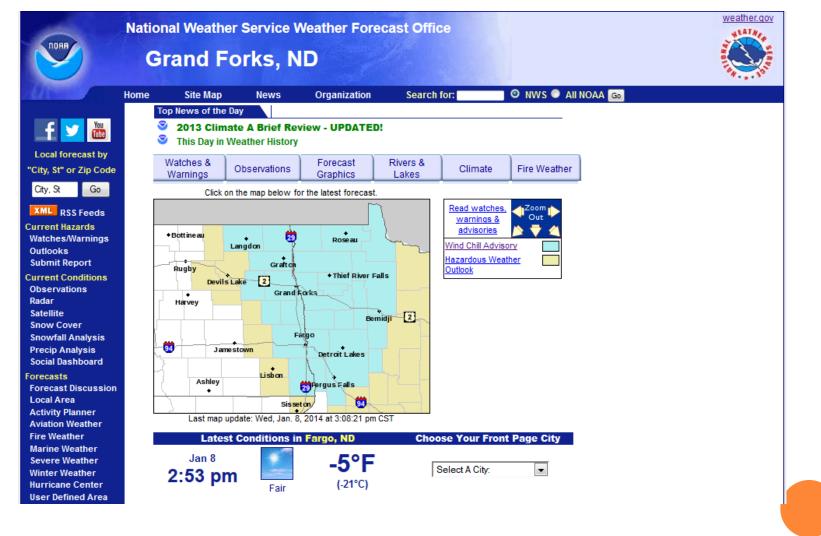
-26" (06:47)

-9" (04:46)

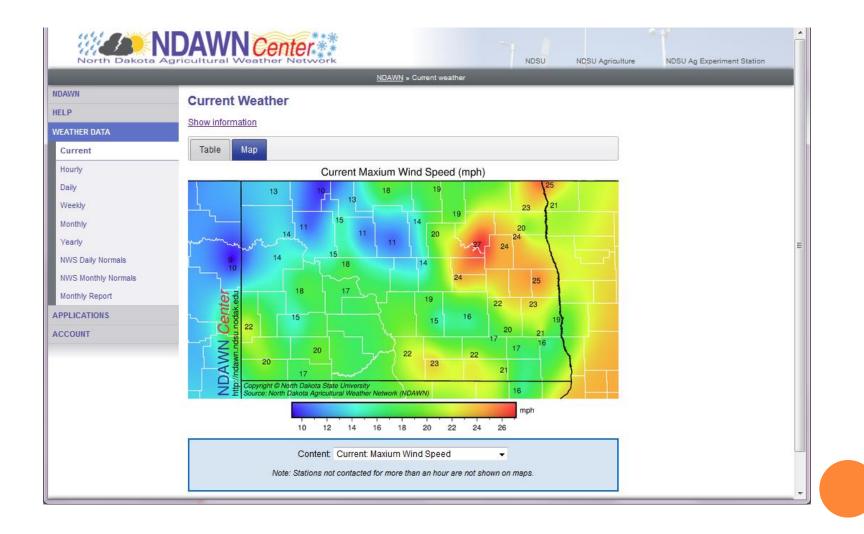
-24° (07:56)

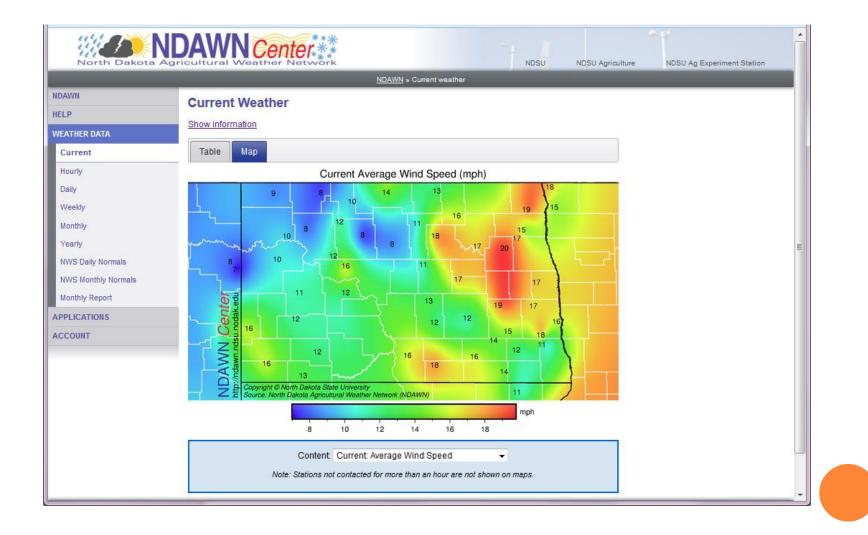
-21° (06:03)

-19° (06:43)



North Dakota			/ork					-	NDSI	J	NDSU A	griculture	NDSU Ag	Experiment Station	n
				ND	AWN » Cur	rent weath	er								
NDAWN	Current	Weather													
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WEATHER DATA	Show inform	nauon												$\frown$	
Current					Last 10	) Minutes	;	Avg	Avg			Today's	Today's	Today's	
Hourly			Avg Air	Avg Wind	Avg Wind	Max Wind	Avg Rel	Dew Point	Bare Soil	Yest's Total	Today's Total	Max	Min Air	Max Wind	
Daily	Station	Last Updated	Temp	Dir	Speed	Speed	Hum	Temp	Temp	Rain	Rain	Temp	Temp	Speed	
Weekly		▼ ● 02 Jun 11:20 CDT		NF	¢ 7 mph		¢ 86%	¢ 51°	<b>♦</b> 59°	¢	¢ 0.00"	♦ 56° (01:20)	\$ 52° (07:39)	12 mph (03:53)	-
Monthly	Brorson	• 02 Jun 11:20 CDT	53°	NW K	7 mph	9 mph	86%	49°	58°	0.43"	0.00"	54° (01:00)	50° (07:29)	13 mph (09:58)	
Yearly	Tappen	02 Jun 11:20 CDT	55°	NNW S	11 mph	15 mph	97%	54°	61°	0.00"	0.06"	62° (01:00)	53° (09:05)	16 mph (11:01)	
NWS Daily Normals	Harvey	• 02 Jun 11:20 CDT	54°	NNW T	11 mph	14 mph	96%	53°	59°	0.00"	0.07"	61° (01:19)	52° (07:49)	17 mph (03:18)	
NWS Monthly Normals	Ekre	• 02 Jun 11:20 CDT	63°	NW <	10 mph	16 mph	93%	61°	68°	0.00"	0.01"	69° (09:28)	62° (11:18)	19 mph (09:19)	
Monthly Report	Dickinson	• 02 Jun 11:20 CDT	53°	NW <	11 mph	15 mph	87%	49°	59°	0.17"	0.00"	54° (01:59)	52° (10:03)	20 mph (08:52)	
APPLICATIONS	Beach	• 02 Jun 11:20 CDT	57°		15 mph	22 mph	76%	49°	58°	0.00"	0.00"	58° (10:41)	52° (07:01)	22 mph (11:18)	
ACCOUNT	Bowman	• 02 Jun 11:20 CDT	60°	NNW 🗧	16 mph	20 mph	67%	49°	57°	0.01"	0.00"	60° (10:59)	48° (04:51)	22 mph (10:10)	
	Robinson	• 02 Jun 11:20 CDT	56°	NNW (	13 mph	19 mph	95%	54°	59°	0.01"	0.07"	60° (01:00)	53° (07:35)	22 mph (09:05)	
	Dazey	• 02 Jun 11:20 CDT	59°	NF	18 mph	22 mph	93%	56°	64°	0.18"	0.00"	63° (01:10)	58° (10:40)	23 mph (10:29)	
	Fingal	• 02 Jun 11:20 CDT	60°	NF	15 mph	20 mph	90%	57°	64°	0.12"	0.00"	64° (01:10)	59° (11:20)	23 mph (07:59)	
	Mott	• 02 Jun 11:20 CDT	56°	NW 🤇	14 mph	20 mph	80%	51°	59°	0.32"	0.00"	60° (10:26)	53° (02:15)	23 mph (10:35)	
	Carrington	• 02 Jun 11:20 CDT	55°	NF	17 mph	24 mph	93%	53°	60°	0.04"	0.00"	61° (01:06)	55° (11:13)	24 mph (11:12)	
	Galesburg	• 02 Jun 11:20 CDT	57°	NNW F	15 mph	23 mph	93%	56°	61°	0.29"	0.12"	63° (01:10)		25 mph (10:44)	
	Leonard	• 02 Jun 11:20 CDT	61°	NNW E	16 mph	21 mph	91%	58°	67°	0.03"	0.00"	67° (08:48)	60° (11:17)	25 mph (10:37)	
	Hettinger	• 02 Jun 11:20 CDT	59°	NW <	13 mph	17 mph	75%	51°	62°	0.08"	0.00"	60° (09:52)	49° (05:19)	26 mph (09:52)	
	Mayville	• 02 Jun 11:20 CDT	59°	NNW F	19 mph	25 mph	84%	55°	62°	0.00"	0.25"	63° (01:00)		29 mph (10:13)	



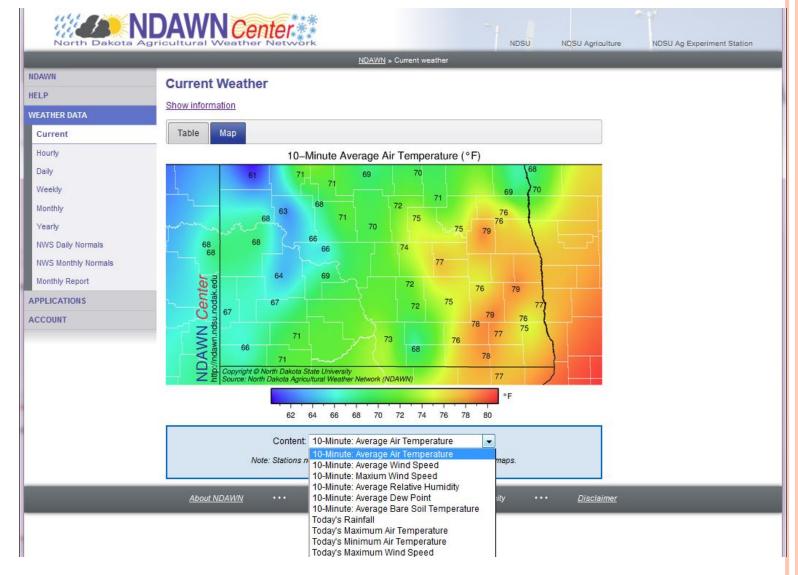


## **FUTURE OF NDAWN**

## CURRENT WEATHER MAPS

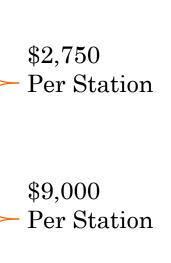
North Dakota A		N Center	影 * * * ork						NDSU	NDSU Agriculture			NDSU Ag Experiment Station	
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VN	Current	Weather												
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kly			Avg Air	Avg Wind	Avg Wind	Max Wind	Avg Rel	Dew Point	Bare Soil	Yest's Total	Today's Total	Max Air	Min Air	Max Wind
hly	Station	Last Updated	Temp \$	Dir	Speed \$	Speed \$	Hum ¢	Temp \$	Temp \$	Rain	Rain	Temp \$	Temp \$	Speed \$
y	Baker	• 27 May 10:30 CDT	74°	wnw 🤨	5 mph	9 mph	46%	52°	64°	0.00"	0.00"	74° (10:13)	57° (05:42)	
Daily Normals	Beach	• 27 May 10:30 CDT	65°	w 🖵	9 mph	12 mph	81%	59°	63°	0.66"	0.94"	66° (10:28)	56° (04:03)	37 mph (03:
Monthly Normals	Berthold	27 May 10:30 CDT	68°	w 🖳	19 mph	23 mph	70%	57°	62°	0.00"	0.00"	68° (10:28)	53° (04:56)	
hly Report	Bottineau	27 May 10:30 CDT	68°	SSE 🔪	5 mph	7 mph	76%	60°	60°	0.61"	0.00"	69° (10:29)	55° (06:11)	
CATIONS	Bowbells	27 May 10:30 CDT	71°	WNW 4	19 mph	25 mph	52%	53°	60°	0.00"	0.00"	71° (10:17)	52° (05:23)	
JNT	Bowman	27 May 10:30 CDT	66°	WNW 4	15 mph	21 mph	81%	60°	62°	0.00"	0.49"	67° (10:12)	56° (05:59)	33 mph (04:
	Britton	O 27 May 10:10 CDT	75°	w 🖵	3 mph	6 mph	65%	63°	66°	0.00"	0.00"	76° (10:08)	56° (05:27)	
	Brorson	27 May 10:30 CDT	65°	NW <	5 mph	7 mph	72%	56°	64°	0.00"	0.01"	66° (10:30)	57° (01:39)	11 mph (04:3
	Cando	27 May 10:30 CDT	70°	ssw 🗸	4 mph	7 mph	69%	59°	59°	0.00"	0.23"	70° (10:21)	56° (06:40)	
	Carrington	27 May 10:30 CDT	76°	wsw 🖵	11 mph	16 mph	56%	59°	71°	0.00"	0.00"	76° (10:24)	59° (04:32)	21 mph (04:
	Crary	27 May 10:30 CDT	74°	ssw 🏒	8 mph	12 mph	54%	56°	65°	0.00"	0.00"	74° (10:21)	58° (05:43)	
	Crosby	27 May 10:30 CDT	60°	wnw <	10 mph	13 mph	74%	52°	60°	0.00"	0.00"	63° (09:00)	57° (01:59)	
	Dazey	27 May 10:30 CDT	76°	sw 🖌	6 mph	10 mph	49%	55°	63°	0.00"	0.00"	76° (10:24)		10 mph (10:
	Dickinson	27 May 10:30 CDT	66°	w∟	12 mph	17 mph	81%	60°	64°	1.31"	0.20"	67° (10:17)	58° (01:37)	24 mph (05:
	Dunn	27 May 10:30 CDT	63°	NW <	11 mph	17 mph	85%	58°	59°	2.37"	0.02"	63° (10:29)	57° (05:01)	
	Edgeley	27 May 10:30 CDT	76°	s⊥	6 mph	11 mph	60%	61°	67°	0.00"	0.00"	76° (10:20)	55° (06:14)	
	Ekre	27 May 10:30 CDT	75°	NĽ	4 mph	6 mph	66%	63°	65°	0.00"	0.00"	76° (10:18)	57° (06:29)	7 mph (04:0
	Fargo	27 May 10:30 CDT	76°	wsw 🛩	3 mph	6 mph	62%	62°	68°	0.00"	0.00"	76° (10:25)	55° (06:10)	
	<u>Fingal</u>	• 27 May 10:30 CDT	78°	NE 🗡	3 mph	6 mph	43%	54°	69°	0.00"	0.00"	79° (10:28)	56° (04:38)	11 mph (01:0
	Forest River	27 May 10:30 CDT	73°	SSE 🔪	4 mph	6 mph	58%	58°	66°	0.00"	0.00"	74° (10:29)	54° (06:11)	
	Galesburg	27 May 10:30 CDT	77°	NNW Y	3 mph	5 mph	48%	56°	66°	0.00"	0.00"	78° (10:29)	53° (06:00)	
	Garrison	27 May 10:30 CDT	66°	WNW 《	24 mph	31 mph	76%	59°	62°	0.06"	0.00"	67° (01:24)	56° (06:19)	
	Harvey	• 27 May 10:30 CDT	72°	NNW Y	5 mph	7 mph	55%	55°	66°	0.00"	0.00"	73° (09:32)	62° (04:07)	20 mph (09:
	Hazen	27 May 10:30 CDT	67°	NW <	13 mph	20 mph	73%	58°	61°	0.34"	0.30"	68° (10:29)	59° (06:17)	
	Hettinger	27 May 10:30 CDT	69°	W	6 mph	7 mph	74%	61°	65°	0.00"	0.34"	70° (10:29)	56° (06:28)	37 mph (01:4

#### CURRENT WEATHER MAPS



#### NDAWN UPGRADE

- o Data Flow
  - From NDAWN to HPRCC (Since March 8, 2014)
- CR10X to CR1000 Dataloggers
- Dial-in Modem to Wireless IP Connection
- Power modifications
- 11 additional Stations
  - Billings, Slope, Grant, Sioux, Oliver, Logan,
  - Sargent, Steele, Burleigh and Griggs Counties
- 50% State match for maintenance



# **Comments/Questions:**

Adnan Akyüz, NDSU State Climatologist

E-mail: <u>Adnan.Akyuz@ndsu.edu</u>

Phone: 701-231-6577

Climate Office: <u>http://www.ndsu.edu/ndsco/</u> NDAWN Center: <u>http://ndawn.ndsu.nodak.edu/</u>