

Compete Against Top Corn Producers and UNL Scientists



MARCH 20, 2017

**University of Nebraska-Lincoln
Testing Ag Performance Solutions
(UNL-TAPS)**

**1st Annual Farm Management
Competition**

Can you out-farm a UNL Scientist? Find out by entering a field competition for managing center pivot irrigated corn for the 2017 growing season. The contest will be held at the West Central Research and Extension Center (WCREC) in North Platte, NE.

Contestants will make production and management decisions for individual plots, including: irrigation scheduling, nitrogen management, hybrid selection, plant population, grain marketing, and risk management.



CASH AWARDS:

- 1. Most Economically Profitable - \$2,000**
- 2. Highest Input Use Efficiency - \$1,000**
- 3. Highest Yield - \$500**

\$100 ENTRY FEE

15 Producers Total

**Compete Against UNL
Specialists and
Educators**

Website:

www.TAPS.unl.edu

**West Central Research
and Extension Center**

402 w State Farm Rd.
North Platte, NE 69101

UNIVERSITY OF NEBRASKA-LINCOLN
TESTING AG PERFORMANCE SOLUTIONS (UNL-TAPS)
2017 FARM MANAGEMENT COMPETITION

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1. Description:

The first annual field competition for managing corn under center pivot irrigation will be established for the 2017 growing season at the West Central Research and Extension Center (WCREC) in North Platte, Nebraska. The competition will be evaluated in terms of: 1) most economically profitable; 2) highest input use efficiency; and 3) highest grain yield. The highest scoring individual from each category will receive a cash prize and the grand prize which will be \$2,000 for the highest farm profit. The entry fee for the competition is \$100 per team or contestant. The competition is open to all interested parties with a maximum of 15 total teams or participants. WCREC specialist and educators will also compete; however, they are not eligible to win the cash awards, only for bragging rights! Each team or individual who pays the \$100 entry fee will be designated as a “Farm” which on paper includes 3,000 harvested acres for the purposes of making decisions. The competition will be conducted under a variable rate irrigation system at WCREC. Participants will be required to make many farm management decisions of a Central Nebraska Representative Corn Farm created for the purposes of the competition. The “Farm” decisions made by each team will be imposed on 3 randomized plots, where each plot is 6 rows wide by approximately 100 ft in length. The average of the three plots will be used for collecting yield data. Participants will have control over six parameters, including irrigation management, nitrogen management, hybrid selection, population density, grain marketing, and insurance selection. A full description of each parameter is listed below in the appropriate sections. All other management decisions, such as pesticide use, tillage, residue management, etc., will be fixed by the University and be the same for all plots (Farms). The actual physical management such as the operation of machinery, irrigation system, application of chemicals and harvesting will be conducted by the WCREC staff. Participants will be allowed to observe, install their own equipment and/or collect additional data from their plots throughout the growing season at their own expense and risk. However, no additional inputs, such as fertilizers, additives, etc. may be used on individual plots.

The competition starts with a kickoff meeting on March 20, 2017 where contestants will meet formally to discuss the mechanics of competing and make the needed arrangements to participate. Each individual/team will be associated with a Farm ID#, which the University will keep confidential. Producers will use a website (www.TAPS.unl.edu) to access competition updates as well as make and submit the required management choices. WCREC personnel will regularly take photos and various data for each Farm ID#, including soil water status, plant height, leaf area index, grain nitrogen uptake, etc. This information will be posted weekly as it is collected, to the website, including photos, crop growth stage, and weather conditions for the past 2 weeks.

Supporting information, such as soil water status, leaf area index, plant height, and plant nitrogen uptake will be made available to the participants at the end of the growing season. Two mid-season meetings will occur, the first on June 27th and the second during the WCREC field day on August 24th, 2017, where we will provide a project update. The competition will commence with an award banquet on January 15th, 2018. Each producer will have an opportunity to share their management strategies and discuss what they felt worked and didn't work.

2. Competition Website:

- Participants will submit management information, such as nitrogen and irrigation rates, marketing decisions, among others, through the competition website. The website address is www.TAPS.unl.edu.
- In-season photographs of the plots, crop growth stage, and past weather data will be collected and uploaded to the competition website.
- Additional farm management resources as well as contact information of the WCREC team is available on the website.

3. Rules

- Operators are encouraged to visit and observe their "Farm".
- Operators may install equipment and/or collect additional data from their plots at their own expense (with approval), but the data must be made available to the organizing hosts.
 - o Sensors, soil samples, plant samples, etc.
- No additives, secret ingredients or soil, water or additional fertilizers or manures may be added to the plots
 - o Individuals must confine their management to the set of listed parameters
- Tampering or modifying any plot at the WCREC are grounds for disqualification.

4. Awards

1. Most Economically Profitable (\$2,000)
2. Highest Combined Water and Nitrogen Input Use Efficiency (\$1,000)

$$\text{Input Efficiency} = \frac{(ET_{\text{Farm}} - ET_{\text{Control}})}{\text{Irrigation}_{\text{Farm}}} \times \frac{(\text{Grain N Uptake}_{\text{Farm}} - \text{Grain N Uptake}_{\text{Control}})}{\text{Nitrogen Applied}_{\text{Farm}}} \times \frac{\text{Yield}_{\text{Farm}}}{\text{Yield}_{\text{Control}}}$$

where, "control" is a farm managed by UNL that receives no irrigation or N fertilizer (except for 10-34-0 at planting), "ET" is evapotranspiration for the individual and control farms, and "N Uptake" is nitrogen taken up in the grain.

3. Highest Grain Yield × Percent of Most Profitable Farm (\$500 × \$Farm/\$Farm_{highest})

5. Production Components

The participants are responsible for making production management decisions, including hybrid selection, planting population density, pre- and in-season nitrogen management, and irrigation scheduling. All of the physical operations and inputs will be applied by the competition administrators and or their agents (UNL WCREC). Deadlines for various management decisions are located in the “timeline” section. A detailed description of the production components follow:

5.1. Irrigation Scheduling

- The irrigation system is equipped with variable rate technology and will be managed by the WCREC irrigation research technologist. The system will be operated every Monday and Thursday throughout the growing season. The participants will have until 10 AM on the irrigation days to note whether they would like to irrigate using a form located on the competition website. Irrigation depths can be between 0 and 1.0 inches per application in intervals of 0.10 inches. If participants fail to indicate their intent to irrigate by 10 AM, no irrigation water will be applied on that irrigation day.

5.2. Nitrogen Management

- Participants will have the ability to decide on the amount of pre-plant and/or in-season (via side-dress and fertigation) nitrogen fertilizer in the form of UAN 32%. All plots will receive a baseline 5 gallons per acre of starter fertilizer (10-34-0) at time of planting. Timing of pre-plant will occur on April 3rd (or earliest convenient date), side-dress will occur between V4 and V6 growth stages, and fertigation at V9, V12, VT/R1 and R2 growth stages. Maximum side-dress amount is 140 lbs/acre and maximum fertigation amount per application is 30 lbs/acre. Pre-season soil sampling report is shown in attachment. A custom application cost of \$7.00 per acre will be charged for the pre-plant and side dress applications. An application fee will be charged for chemigation and will be determined prior to the side dress operation.

5.3. Hybrid Seed Selection

- Participants will have the option of using this year’s default hybrid (Dyna-Gro D53VC55RIB, see attachment) or supplying their own seed. If participants decide to supply their own, 10 lbs of seed must be delivered at WCREC by April 10th with its associated market value. The value is needed to estimate planting costs associated with simulated the 3,000 acre farm. Keep in mind that the base hybrid for the competition will be the DynaGrow 113 day hybrid. The competition field will be picked when this hybrid is near 18% moisture content. Hybrids picked at that time will be charged a drying cost of \$0.04 per point per bushel above 15.5%.

5.4. Planting Population

- Participants will decide on the planting population density (seeds per acre based on a 30 in row spacing).

6. Economic Components

It is no accident that the award with the most value (overall winner) for this contest is for the farm with the greatest profit. It is the combination of technical prowess and business skill that makes the difference among producers. While the coffee shop affords many the opportunities to extoll the virtues of their productive skills, it is the bottom-line, the private victory of a successful (profitable) business capable of providing for family and community needs that brings true satisfaction. To provide some insight on why marketing might be so important to success let's review the ingredients of the profit relationship. Profit (positive or negative) is equal to Price times Quantity (Total Revenue) minus Total Cost (Variable cost plus Fixed Costs). Variable cost is directly related to production choices, such as seed, fertilizer, and pest control etc. Fixed costs remain constant for the season and can only be adjusted in the long run from year to year and for this contest are given (the budget). Both variable costs and revenue are affected by the quantity produced. So, if costs are cut and production remains constant profit will increase, but in the case where costs are reduced less than the revenues lost, profit is diminished. Therefore, any decision or choice made regarding cost control should be centered on its effect on productivity. But, not just productivity but productivity and price (market value). Note that the higher the price or market value the more cost may be increased without negatively affecting profits with cost changes. In fact as market prices increase it would be expected for producers to increase input costs such as fertilizer and others depending on their expected positive effects on yields.

Let's consider more deeply the effect of market value. In a year with lower yields profits may be increased by increasing market prices. Conversely in a year of plenty, high yields may be partially cancelled out by lower prices. From the point of view of the contest, given contestants achieve similar yields and have similar costs, the advantage to have the highest profits, would go to the contestant who receives the highest market prices. This in no way diminishes the need for productivity; In fact given the technical skill level of the participants the winner is likely to have to have a competitive amount of productivity. In this instance it is the farm that does the best job of marketing that is likely to prevail in the contest.

6.1. Cost Control

- Each farm will have the basic cost of production outlined on this year's budget. (attached) Each of the inputs have a listed price or per unit costs depending on the type of input. The input costs for variable inputs, based on use such as fertilizer, drying costs, etc. will be based on actual use or yields. Some of the inputs will be limited in the timing, application method, and quantities as outlined in the rules. (Strategy Hint: Each unit of input controlled by the contestants should return at least its value to make a positive contribution toward profitability).

6.2. Insurance Selection

- Participants may select a coverage package from the following options: Revenue Protection (either enterprise or optional units), Revenue Protection with Harvest Price Exclusion (either enterprise or optional units), and Yield Protection (either enterprise or optional units) at the levels of 65, 70, 75, 80 and 85%. See attached insurance quote page provided by a local insurer (see attachment). These rates are for the Universities farm located at North Platte, NE. Note there is also different types of hail coverage (see attachment). Wind insurance is also available at \$5.00 per each \$100 of coverage. Any simulated indemnity payments that would accrue will be based on estimated field loss determinations on the assessment of an expert(s) chosen by UNL for a statistically representative area (3,000 acres) of Lincoln County created by the executive team.

6.3. Marketing Grain

- Each farm must sell its (simulated) production before December 15, 2017. The simulated production is based on the actual plot yields adjusted to an acre basis multiplied by 3,000. The simulated total will then be adjusted for any losses such as hail etc. due to prevailing conditions observed during the growing season in Lincoln County. The APH for the simulated farms for planning and marketing purposes is 202 bushels per acre, making the total expected yield of 606,000 bushels of corn grain for the simulated farm. Most likely the winning farm will be the one that not only has a competitive crop yield but achieves a high average market value relative to the other farms. The marketing portion of the competition is such that it can make or break a farms standing. All things equal, two producers having similar yields and costs will end up being ranked by who is most successful marketing their crop. This portion of the contest has very few rules. Optimal marketing may require a number of strategies. The key is to achieve a sale value for the grain produced that provides good income. Please remember that on average it is very difficult to make a single sale and expect to receive the highest annual market value. It is most likely the winner of the competition will have followed a strategy based on historical and current market information and sell at various (numerous) times during the competition year.
- Key limitations; any speculative profits will be subtracted from total profits to estimate the farms simulated profit so that all farms will be judged on an equal basis.
- Any contracts or sales must be reported at the time of initiation, including delivery, price, time, date and place and any other conditions related to the event needed to verify and validate the price and quantity sold. (Transactions must be dated and time stamped)

within 24 hours of being entered into, the website automatically does this if forms are properly submitted.)

- Futures, options, and presales are all legitimate alternatives and have the same stipulations of being reported as cash sales.
- All transactions must be completed and specified at the time of harvest. Any unsold crop will be sold at the North Platte Co-op December 15, 2017. All forward contracts and future contracts will be completed or terminated by December 15, 2017.

7. Marketing Guidelines

As noted the cash award for highest economic profitability is likely to depend largely on how well farms “market” their grain. The grain produced for the competition, in the plots will be in reality sold by UNL WCREC. However, the various competitors will have to make all marketing decisions for the simulated farm of 3,000 acres and an APH of 202 bushels. As of March 20, 2017 teams will be responsible to make marketing choices until the contest cutoff date of Dec 15, 2017. Upon reaching the cutoff date all grain unsold will be sold at the North Platte Ag Valley Co-op price and all accounts will be settled so that profit may be determined for all farms. Final farm productivity will be calculated based on the average of the three plots managed according to each team’s specifications. For instance, if farm 3 yielded 200 bushel production, adjusted for bushel weight and quality, it would represent a total of 600,000 bushels for the simulated 3,000 acre farm. Remember just like any “real” operation yield may vary and disaster may strike and there are no guarantees of profitability. Pre-harvest, and harvest sales are available, but unfortunately no post-harvest marketing is possible, due mostly to the nature of the contest and time constraints. For the purpose of this contest, teams are limited in their selection of Crop Insurance (see attachments).

Since destinations other than North Platte (7 miles distant) may be used for grain selling a trucking charge of \$0.02 per bushel per loaded mile will be assessed, a truck may hold as much as 1,000 bushels (no more). All simulated grain sales must specify a destination point at the time of sale. The internet application Mapquest may be used to determine mileage from the farm to the point of sale.

When a simulated grain marketed choice is made it must be properly documented to be valid. The UNL–TAPS team will do its best to review transactions as they are recorded by the website forms, but it is the responsibility of the user to make sure the information is properly entered and correct. Beware transactions that have errors may be invalid and result in simulated revenues or profits. Any transactions when received that are for the previous day will not be valid. When any market transaction is entered on the proper form thru the website the computer automatically time and date stamps the transaction. Please note that once transactions are submitted they are **FINAL** and are non-negotiable, they represent a valid contract. Basically each transaction should include the amount of the grain being sold in the contract, and/or the number of contracts, where the grain is to be delivered, and the particulars related to the type of sale it is. Sale types are limited to the 5

types listed below. There may be other requirements specific to the transaction type. In all cases prices must be verifiable or verified.

7.1. Five Sale Methods

7.1.1. Spot (Cash) Sales

- This is the cash sale at harvest or before the final date of December 15, 2017
- Required Information: Date, Price, (Quantity) Bushels, and Delivery Point (Location).

7.1.2. Forward Contract

- Contract cash price for November delivery at any location that offers new crop prices and any number of bushels. If you forward contract more bushels than you produce (due to hail, wind, etc.) you will be assessed a \$0.10 per bushel buy back fee for the oversold bushels.
- Required Information: Date of transaction, New Crop Price, (Quantity) Bushels, and Delivery Point (Location).

7.1.3. Basis Contract with Delivery at Harvest

- Used to set basis for number of contracts at a given location for November/December delivery. Price per bushel (Futures Price for December) is set at a different time. In this case once made any December futures price between when basis contract is made and November 20, 2017, last day to trade December corn futures settlement price will become the default price if no other is chosen.
- Required Information: Date of transaction, Basis price locked in (how much and where to find this price, proof that it is a valid basis), Contract number (Quantity), and Location. A \$0.02/bushel will be charged for each bushel, a single contract is 5,000 bushels. In addition futures price must be specified at some point, or the November 20, 2017 settlement price will be used.

7.1.4. Simple Hedge to Arrive (no roll over etc.)

- Allows the seller to lock in the futures market portion of a cash grain contract. This is usually done with the local elevator. Any number of bushels may be contracted and are tied to specific delivery point at the time of harvest. The basis will be determined at a later date. Any Basis not determined before harvest will be charged the harvest basis on November 20, 2017. Fee \$0.03 per bushel. If you forward

contract more bushels than you produce (due to hail, wind, etc.) you will be assessed a \$0.10 per bushel buy back fee for the oversold bushels.

- Required Information: Date of hedge, December Contract Price used, Number of Bushels, and Location of delivery and when delivery is made the local price at the specified delivery point. All basis will be based on the futures and delivery location basis calculated at the time of transaction and/or its completion.

7.1.5. Futures Contract

- Use December Futures Contract only. The initial price (short position) must be recorded upon purchase, with the offsetting price set as the settlement price (long position) November 20, 2017 or a date chosen by the seller prior to this time. The cash price will be determined at the time the grain is sold to the delivery point of the contestant's choice. Contracts are limited to 5,000 bushels per contract. Futures Contracts do not set location or basis, which will be the default November 20, 2017. The cash default will be North Platte on December 15, 2017. \$30 per contract per transaction.
- Required Information: Date of Short position, Date of Long Position, Cash Price, Number of Contracts and Location sold to.

8. Timeline

8.1. Meetings

- Opening meeting and initiation (March 20th)
 - o Rules of the competition will be described in detail
- Mid-Season Meeting I (June 27th)
 - o Update on competition and touring of field plots
- Mid-Season Meeting II (August 24th)
 - o Mid-season meeting will occur the day of the WCREC field day
 - o This will provide a chance for the participants to describe their methodology for managing their “Farms” thus far and will allow the competition hosts to give a status update.
- End-Season Award Banquet (January 15th)
 - o Dinner and awards will be provided (location TBD)
 - o Competition summary and co-learning discussion

8.2. Management Decisions

- | | |
|--|---|
| - Insurance selection: | March 31 st |
| - Pre-plant nitrogen amount (lbs/acre): | March 31 st |
| - Hybrid selection and seed delivery: | April 10 th |
| - Seeding rate: | April 10 th |
| - Side-dress nitrogen amount (lbs/acre): | May 1 st |
| - Intent to fertigate (yes or no) | May 1 st |
| o Fertigation options available | |
| ▪ V9, V12, VT/R1, & R2 | According to crop progress |
| - Irrigation Management | Planting to Harvest |
| - Marketing of Grain | March 20 th to Dec. 15 th |

Ag Testing - Consulting

Account No. : 28800

Soil Analysis Report

RUDNICK, DARAN
UNL WEST CENTRAL RESEARCH AND EXT
402 W STATE FARM RD
NORTH PLATTE NE 69101

Invoice No. : 1230312
Date Received : 03/07/2017
Date Reported : 03/09/2017

Results For : UNL WCREC
Location : PIVOT 2017 COMP

Lab No. : 38325 Depth : 0 - 8
ID : SURFACE

1:1 Soil pH	7.7
Soluble Salts 1:1, mmho/cm	0.27
Excess Lime Rating	LOW
Organic Matter LOI, %	1.9
Nitrate-N 2N KCl, ppm N	8.18
Nitrate-N, lbs N / Acre	20
Phosphorus M3, ppm P	41
Potassium NH ₄ OAc, ppm K	584
Sulfate Ca-P, ppm S	8
Zinc DTPA, ppm Zn	2.05
Iron DTPA, ppm Fe	3.1
Manganese DTPA, ppm Mn	1.1
Copper DTPA, ppm Cu	0.24
Calcium NH ₄ OAc, ppm Ca	3024
Magnesium NH ₄ OAc, ppm Mg	305
Sodium NH ₄ OAc, ppm Na	63

Sum of Cations, me/100g	% Saturation				
	H	K	Ca	Mg	Na
19.4	0	8	78	13	1

Saturated Soil Paste Analysis (SAR)

Saturation, %	39
Sat Paste pH	7.6
Sat Paste ECe, mmho/cm	0.57
HCO ₃ , ppm	150
Cl, ppm	11
Ca, ppm	66
Mg, ppm	13
Na, ppm	13
S, ppm	11.8
Sodium Adsorption Ratio	0.4

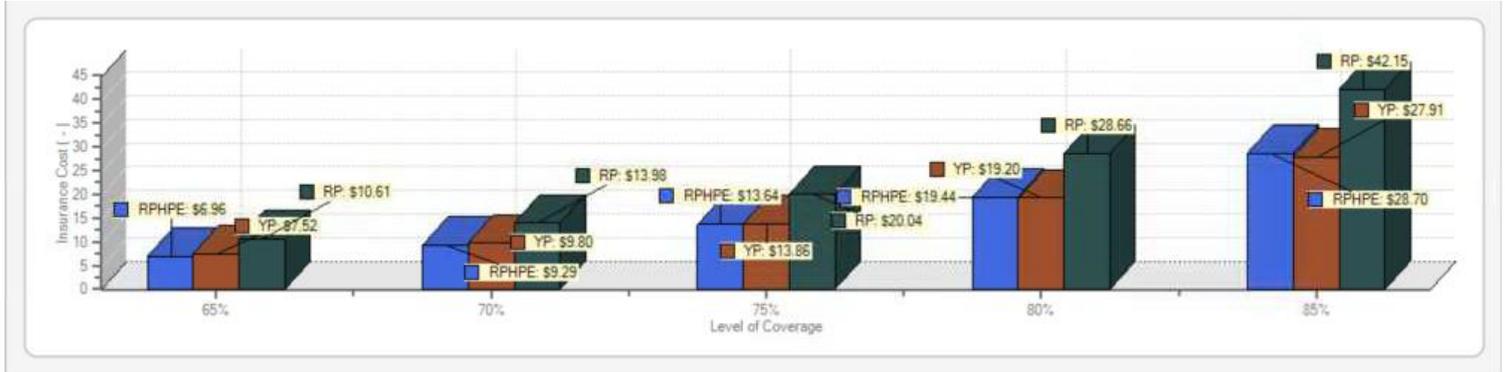
Recommendations
In Actual Pounds of Plant Nutrients per Acre

N Credit : Soybeans - 40	38325
Sub-Soils : 38326: 8 - 36	
Crop	(Ward) Corn, BU
Yield	240
Nitrogen N	175
Phosphorus P ₂ O ₅	35
Potassium K ₂ O	0
Sulfur S	29
Zinc Zn	0
Magnesium Mg	0
Iron Fe	Potential Iron Chlorosis
Manganese Mn	6
Copper Cu	0



Farm Credit Services of America

Optional Units (Each section stands on it's own)



	65%	70%	75%	80%	85%
Guarantee - BU/Acre	131.30	141.40	151.50	161.60	171.70
Coverage - \$/Acre	519.95	559.94	599.94	639.94	679.93
Net Premium - \$/Acre	6.96	9.29	13.64	19.44	28.70
Guarantee - BU/Acre	131.30	141.40	151.50	161.60	171.70
Coverage - \$/Acre	519.95	559.94	599.94	639.94	679.93
Net Premium - \$/Acre	7.52	9.80	13.86	19.20	27.91
Guarantee - BU/Acre	131.30	141.40	151.50	161.60	171.70
Coverage - \$/Acre	519.95	559.94	599.94	639.94	679.93
Net Premium - \$/Acre	10.61	13.98	20.04	28.66	42.15

Enterprise Units (All fields are lumped together in one unit)



	65%	70%	75%	80%	85%
Guarantee - BU/Acre	131.30	141.40	151.50	161.60	171.70
Coverage - \$/Acre	519.95	559.94	599.94	639.94	679.93
Net Premium - \$/Acre	2.16	2.91	4.76	8.75	16.47
Guarantee - BU/Acre	131.30	141.40	151.50	161.60	171.70
Coverage - \$/Acre	519.95	559.94	599.94	639.94	679.93
Net Premium - \$/Acre	2.50	3.31	4.99	8.45	15.38
Guarantee - BU/Acre	131.30	141.40	151.50	161.60	171.70
Coverage - \$/Acre	519.95	559.94	599.94	639.94	679.93
Net Premium - \$/Acre	3.56	4.80	7.58	13.75	25.74

Straight Hail

Rates Per \$100 (For every \$100, it will cost the rate below per acre)

You can add a wind endorsement on your hail policy. The problem with wind coverage is that the stalk has to be broken below an ear for it to pay and coverage expires usually around the 1st or 15th of October. The cost is an additional \$4-5 a \$100 on top of your hail rate.

Basic	DXS5	DXS10	DDA	DDB	XS20IP	DDC	Companion Plan							
							4/5	3/5	2/5	2+	4/10	3/10	2/10	2.5/15
16.45	13.50	10.55	10.35	7.40	6.60	5.45	32.25	27.65	18.75	22.35	23.05	20.75	14.15	16.45

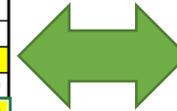
Production Hail

APH	MPCI Coverage Level				
Modification	65%	70%	75%	80%	85%
120%	19.72	20.51	21.4	22.4	23.56



Federal Crop Insurance	
Approved Yield per Acre	202
Coverage Level	75%
Production Guarantee / acre	151.5
Projected Price Share	\$3.96
Federal Crop Ins. / acre	\$ 599.94
Premium/acre	\$ 20.04

Hail Production Plan	
Modified APH 100% - 120%	120%
Modified APH Bushel / Acre	242.4
Production Plan Bushels	90.9
Price Election	\$1.19
% of Price of Election	30%
Production Plan Ins. /ac	\$ 107.99
Production Plan Premium	\$ 21.40
Premium per Acre	\$ 23.11



% of price election can be changed in increments of 5% from 25-100% to get you the amount of coverage per acre that you desire.

Total premium per acre	Total Coverage per acre
\$43.15	\$707.93

NOTE: Your FCSAmerica insurance specialist can review plan and coverage payout differences.

This document is an estimate of Hail Production Plan coverage and makes no guarantee of your final loss payment outcome. Please contact your Farm Credit Services of America insurance specialist for premium quotes and coverage information.

CROP-HAIL POLICY FORMS LOSS PAYOUT CHART PAYABLE PERCENTAGE

Agreed Percent Loss	Basic	DXS5	DXS10	DDA	DDB	DDC	DD20	Comp 15/2.5	COMP 10/2	COMP2	COMP2F	COMP3
	5	5	0	0	0	0	0	0	0	0	0	5
10	10	6.3	0	0	0	0	0	0	0	10	10	15
15	15	12.5	6.3	5	0	0	0	0	10	20	20	30
20	20	18.8	12.5	10	0	0	0	12.5	20	30	30	45
25	25	25	18.8	25	5	0	5	25	30	40	40	60
30	30	30	25	30	10	0	10	37.5	40	50	50	75
35	35	35	31.3	35	25	5	15	50	50	60	60	90
40	40	40	37.5	40	40	10	20	62.5	60	70	70	100
45	45	45	43.8	45	45	25	35	75	70	80	80	100
50	50	50	50	50	50	40	50	87.5	80	90	90	100
55	55	55	55	55	55	55	55	100	90	100	100	100
60	60	60	60	60	60	60	60	100	100	100	100	100
65	65	65	65	65	65	65	65	100	100	100	100	100
70	70	70	70	70	70	70	70	100	100	100	100	100
75	77.5	77.5	77.5	77.57	77.5	77.5	77.5	100	100	100	100	100
80	85	85	85	85	85	85	85	100	100	100	100	100
85	92.5	92.5	92.5	92.5	92.5	92.5	92.5	100	100	100	100	100
90	100	100	100	100	100	100	100	100	100	100	100	100
95	100	100	100	100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100	100	100	100	100

Note: Production Plan loss payout—Has no deductible, raise less than 242.4 bu and have hail going to get a hail indemnity. Pays 100% of indemnity usually at a 35-40% hail loss.

CROP HAIL PLANS

EXAMPLES OF PAYMENTS UNDER OPTIONAL PERCENTAGE OF LOSS PROVISIONS.

	Basic	DXS5	DXS10	DDA	DDB	DDC	DD20	Comp 15/2.5	Comp 10/2	COMP2	COMP2F	COMP3
5	5	0	0	0	0	0	0	0	0	0	5	0
10	10	6	0	0	0	0	0	0	0	10	10	15
15	15	13	6	5	0	0	0	0	10	20	20	30
20	20	19	13	10	0	0	0	13	20	30	30	45
25	25	25	19	25	5	0	5	25	30	40	40	60
30	30	30	25	30	10	0	10	38	40	50	50	75
35	35	35	31	35	25	5	15	50	50	60	60	90
40	40	40	38	40	40	10	20	63	60	70	70	100
45	45	45	44	45	45	25	35	75	70	80	80	100
50	50	50	50	50	50	40	50	88	80	90	90	100
55	55	55	55	55	55	55	55	100	90	100	100	100
60	60	60	60	60	60	60	60	100	100	100	100	100
65	65	65	65	65	65	65	65	100	100	100	100	100
70	70	70	70	70	70	70	70	100	100	100	100	100
75	78	78	78	78	78	78	78	100	100	100	100	100
80	85	85	85	85	85	85	85	100	100	100	100	100
85	93	93	93	93	93	93	93	100	100	100	100	100
90	100	100	100	100	100	100	100	100	100	100	100	100
95	100	100	100	100	100	100	100	100	100	100	100	100
100	100	100	100	100	100	100	100	100	100	100	100	100

CROP HAIL PLANS

Basic – No deductible applies. Provides a loss payment for any adjusted loss on the field. When adjusted loss percentage exceeds 70%, catastrophe loss award is paid (0.5% for each 1.0% of loss). Total payable loss percentage shall not exceed 100%.

Excess Over 5% Loss-Disappearing at 25% (DXS5) – No loss until loss percentage per acre exceeds 5%. Percentage per acre payable will be the percentage in excess of 5% multiplied by 1.25. Once loss percentage equals or exceeds 25%, this provision no longer applies.

Excess Over 10% Loss-Disappearing at 50% (DXS10) – No loss until loss percentage per acre exceeds 10%. Percentage per acre payable will be the percentage in excess of 10% multiplied by 1.25. Once loss percentage equals or exceeds 50%, this provision no longer applies.

Optional Disappearing Deductible (DDA) – No loss until loss percentage per acre exceeds 10%. Percentage payable will be the percentage in excess of 10%. Once loss percentage exceeds 20%, an additional 2% will be paid for each percentage of loss in excess of 20%, up to 25%, at which percentage this provision no longer applies.

Optional Disappearing Deductible (DDB) – No loss until loss percentage per acre exceeds 20%. Percentage payable will be the percentage in excess of 20%. Once loss percentage exceeds 30%, an additional 2% will be paid for each percentage of loss in excess of 30%, up to 40%, at which percentage this provision no longer applies.

Optional Disappearing Deductible (DDC) – No loss until loss percentage per acre exceeds 30%. Percentage payable will be the percentage in excess of 30%, at which percentage exceeds 40%, an additional 2% will be paid for each percentage of loss in excess of 40%, up to 50%, at which percentage this provision no longer applies.

Excess Over 20% Loss-Disappearing Deductible (DD20) – No loss until loss percentage per acre exceeds 20%. Percentage per acre payable will be the percentage in excess of 20%. Once the loss exceeds 40%, an additional 2% will be paid for each percentage of loss in excess of 40%, up to 50%, at which percentage this provision no longer applies.

Companion 15/2.5 – No loss until loss percentage per acre exceeds 15%. Percentage per acre payable will be the percentage in excess of 15% multiplied by 2.5. Payable percentage may not exceed 100%.

Companion 10/2 – No loss until loss percentage per acre exceeds 10%. Percentage per acre payable will be the percentage in excess of 10% multiplied by 2. Payable percentage may not exceed 100%.

Companion 2.0, 3.0 – No loss until loss percentage per acre exceeds 5%. Percentage per acre payable will be the percentage in excess of 5% multiplied by the increasing payment factor (2.0, 3.0). Payable percentage may not exceed 100%.

Companion 2F – Provides full coverage on all losses up to and including 10%. Any loss exceeding 10% will be calculated by deducting 5% from the adjusted loss and multiplying by a factor of 2.

Production Plan – Policy that protects bushels that are not covered on the Federal Crop policy. Insure all the bushels or put a specified amount of dollars on the portion not covered on the Federal Crop policy (varies by insurance company); Production Plan and Federal Crop must be with the same company; indemnity payment made after harvest if production loss incurred.

D53VC55RIB



113 RM • 2750 GDU

VT Double Pro RIB Complete

AVAILABLE RIB: YES

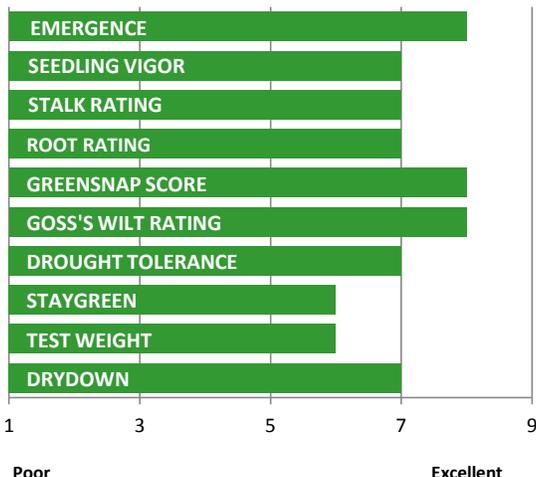
Management & Positioning

- Widely adapted VT2 Pro RIB with key characteristics for the western corn belt
- Very good Goss's Wilt, Excellent Greensnap and Good Gray Leaf Spot tolerance
- Best suited on highly productive acres - maximize performance with irrigation
- Timely harvest recommended with average fall stalk and good root strength
- Medium plant height with medium ear height - Intense Corn Production

Product Management

- Planting Date:**
 Early..... HR
 Late..... R
- Planting Populations:**
 RainFed > 22".... **28-34,000**
 Irrigated..... **32-36,000**
 Dryland < 22".... **16-22,000**
- Water Management:**
 Full Irrigation.... HR
 Limited..... R
 Dryland..... R
- Crop Rotation:**
 Corn/Soybeans.. HR
 Continue Corn... w/Fungicide
- Tillage:**
 Conventional.... HR
 Minimum..... HR
 Ridge-Till..... HR
 No-Till..... R
- Harvest Schedule:**
 Early..... HR
 Late..... N
- Post Application**
 Herbicide..... Normal
 Fungicide..... Positive
 LPI Nutritional.... Very Good
- Herbicide Resistance: **Glyphosate**
- Soils:**
 Clay Loams..... R
 Sandy..... R
 Silt Loam..... HR
 Peat..... R
 Compacted..... N
 Poorly Drained... N
 Drought Prone.... R
 High pH..... R
- Forage:**
 Silage Select™ N
 Dual Purpose..... R
- **Fertility** —
- Potassium Levels**
 Low..... N
 Med..... R
 High..... HR
- Phosphate Levels**
 Low..... N
 Med..... R
 High..... HR
- Nitrogen Levels**
 Low..... N
 Med..... R
 High..... HR

Agronomic Ratings



Yield Environment

- High Yield Environment..... HR
- Moderate Yield Environment..... HR
- Low/Stress Yield Environment..... R

Other Trait Versions Available:

NONE D53VC55

Plant with These Hybrids for Diversity:

D49VC39 D52VC50 D51VC32 D52VC91
 D54VC81

Tested As:

Agronomic Traits

- Plant Height..... **Medium**
- Ear Height..... **Medium**
- Flowering..... **Late**
- Leaf Habit..... **Semi-Upright**
- Ear Flex..... **Semi-Det**
- Ear Type..... **Girthy**
- Kernel Rows..... **16-18**
- Cob Color..... **Red**
- Kernel Texture..... **Medium**
- Kernel Depth..... **Medium**
- Husk Tightness..... **Adequate**
- Shank Length..... **Medium**

Disease Tolerance Ratings

- Gray Leaf Spot..... **7**
- Goss's Wilt..... **8**
- N. Leaf Blight..... **6**
- S. Leaf Blight..... **8**
- Eye Spot..... **6**
- Common Rust..... **n/a**
- Southern Rust..... **5**
- Anthraxnose..... **n/a**
- L Anthracnose..... **n/a**

Ratings Key: 9 = Excellent, 5 = Average, 1 = Poor, HR = Highly Recommended, R = Recommended, N = Not Recommended, n/a=Testing not complete.
 Herbicide Abbreviations: GR=Growth Regulator, PI=Pigment Inhibitor, SU=Sulfonylurea; ***Actual ratings based on best current information available and may be affected by changing environmental and management conditions***

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