

EXPERIENCES, MANAGEMENT, AND ECONOMICS OF CEREAL RYE IN NORTHWEST ILLINOIS



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MY BACKGROUND

- 34 YEARS OLD
- MARRIED SINCE 2011 TO BRITTANY, 2 KIDS, AMELIA 7, CHARLIE 4
- GRADUATED FROM ILLINOIS STATE UNIVERSITY IN 2008, AGRIBUSINESS AND AGRONOMY MAJOR
- WORKED FOR GOLD STAR FS, 2008-2013
 - CROPS SALES ASSOCIATE
 - CERTIFIED CROP ADVISER (CCA) IN 2010
- FARMING FULL-TIME SINCE 2013
- FARM 1,250 ACRES OF CORN, SOYBEANS, WHEAT, AND HAY
- 2,400 HEAD WEAN-FINISH HOG BARN
- LIVE AND FARM IN THE VIOLA AREA
- LATE GRANDPA LAVERNE BELL NAMED "MERCER COUNTY CONSERVATION FARMER OF THE YEAR" IN 1978
- 9 YEARS OF COVER CROP EXPERIENCE



GOOD EXPERIENCES IN CORN

- EROSION CONTROL/PREVENTION
 - SOYBEAN STUBBLE EXTREMELY PRONE TO EROSION
 - LATE WINTER THRU EARLY SPRING
- IMPROVED SOIL TILTH
 - NICE PLANTING ENVIRONMENT
- LITTLE TO NO YIELD LOSS
 - ***WITH PROPER MANAGEMENT***



“LEARNING” EXPERIENCES IN CORN

- WEATHER IS MAJOR FACTOR
 - COLD/WET/CLOUDY = HIGH POTENTIAL FOR SEEDLING DISEASE, ALLELOPATHY, CARBON PENALTY
 - ISSUES COMPOUND OTHER ISSUES
- TERMINATION TIMING
 - DON'T TERMINATE RYE > 12" IF CORN ISN'T PLANTED AND RAINY FORECAST
 - DEAD/FALLEN OVER RYE SHADES GROUND AND PREVENTS SOIL FROM WARMING/DRYING
- ARMYWORM POTENTIAL
 - MONITOR MOTH FLIGHTS



MY CURRENT PROGRAM FOR CORN

- SEED 15" ROWS ON ANGLE FOLLOWING COMBINE
- STRIP-TILL NH₃ – 100 UNITS N
- PLANT CORN ON STRIPS
 - HD DP SPRINGS, ROW CLEANERS, SPIKE CLOSING WHEELS/DRAW CHAINS
- SPRAY PRE/RYE BURNDOWN FOLLOWING PLANTER
 - 40 UNITS N AS 32%/5 GAL ATS
 - 44 OZ ROUNDUP (ANTAGONISM)
- BROADCAST 46 UNITS N AS SUPER U ~V4



MANAGEMENT TIPS FOR CORN



- LESS THAN 50 LBS SEEDING RATE
 - THIN STAND, SHOULD GIVE GOOD EROSION BENEFIT BUT NOT COMPLETELY SHADE THE GROUND
 - CONSIDER 15" ROWS OVER DRILLED/BROADCAST
- TERMINATE <8" ASAP IN THE SPRING OR PLANT GREEN
 - 32oz ROUNDUP
- APPLY MINIMUM OF 40 LBS N AT PLANTING (BROADCAST WITH PREEMERGE CHEM OR PLANTER APPLIED)
 - STARTER FERTILIZER/INFURROW?
 - RE-ALLOCATE TOTAL N, FRONT LOAD IN SPRING
- CONSIDER STRIP-TILL, OR "BIO-STRIP" TILL TO CREATE CLEAN PLANTING ENVIRONMENT

MANAGEMENT TIPS FOR CORN

BASIC

- BROADCAST/AERIAL APP
- TERMINATE ASAP IN SPRING
- NO-TILL CORN
- BROADCAST N AT PLANTING

ADVANCED

- DRILL/PLANT POST HARVEST
- PLANT GREEN AND TERMINATE PRE-EMERGE
- STRIP-TILL CORN
- LIQUID N/IN-FURROW ON PLANTER

NEXT STEPS IN CORN?

Strip till w/NH3 (std program)



Strip till through hog manure

- HYDRAULIC DOWNFORCE ON PLANTER (THIS SPRING)
- IN-FURROW STARTER/N ON PLANTER (CONSIDERING)
- USE MESZ FOR S AND ZN (TRANSITIONING)
- MANURE (NEED MORE)
- UNDECIDED ON TERMINATION TIMING
 - ASAP IN SPRING OR POST PLANTING
 - MIGHT DEPEND ON THE YEAR

GOOD EXPERIENCES IN SOYBEANS



- **EASIER TO MANAGE** THAN CORN, BUT STILL ADDITIONAL MANAGEMENT
 - THE SIMPLEST WAY TO START INTO COVER CROPS
- SIMPLE NO-TILL PLANTER SETUP, NOTHING FANCY NEEDED
- TERMINATION TIMING LESS CRITICAL
- MORE SEED, MORE HEIGHT, MORE WEED SUPPRESSION (WATERHEMP)
- OWNING A SPRAYER HELPS REDUCE POTENTIAL TIMING ISSUES

“LEARNING” EXPERIENCES IN SOYBEANS

- EARLY AERIAL + GOOD WEATHER
 - CAN CAUSE MINOR HARVEST ISSUES
 - GREEN RESIDUE THROUGH THE COMBINE
- SELECT MAX
 - DON'T REALIZE HOW SLOW IT IS TILL MAIN RYE BURNDOWN IN NGMO SYSTEM
 - SHADED BEANS GET SPINDLY/LODGING
 - ADDITIONAL STRAW RUNNING THROUGH
 - CAN SLOW DOWN HARVEST SPEED



**June 8th
Select Max**



**June 28th
Select Max**



MY CURRENT PROGRAM FOR RR SOYBEANS

Terminating cereal rye



- PLANT 15" ROWS ON ANGLE FOLLOWING COMBINE
- SPRAY RESIDUAL ONLY EARLY SPRING
- PLANT GREEN
- TERMINATE RYE WITH 32 OZ ROUNDUP
- POST RESIDUAL PLUS ROUNDUP FOR INSURANCE
 - VERY LITTLE NEED FOR XTEND OR ENLIST (AT THIS MOMENT)
- SUCCESSFUL PROGRAM REQUIRES HAND PULLING/SPOT SPRAYING FIELD EDGES AND PROBLEM SPOTS

MANAGEMENT TIPS FOR SOYBEANS

- SEEDING RATE LESS IMPORTANT THAN CORN
 - 40+ LBS FOR WEED CONTROL
- SPRAY STRONG RESIDUAL AHEAD OF PLANTING
 - CAN ADD ROUNDUP FOR SIMPLICITY
 - IF PLANTING BEANS IN APRIL CAN GO RESIDUAL ONLY TO MAXIMIZE COVER CROP GROWTH
- NARROW ROWS (EARLIER CANOPY)
- PLANT GREEN
 - VERY LITTLE PLANTER ADJUSTMENTS VS STD NO-TILL SETUP
- FOLLOW PLANTER WITH 32OZ ROUNDUP



MANAGEMENT TIPS FOR SOYBEANS

BASIC

- BROADCAST/AERIAL APP INTO STANDING CORN
- TERMINATE ASAP IN SPRING WITH RESIDUAL

ADVANCED

- DRILL/PLANT POST HARVEST
- SPRAY RESIDUAL ONLY ASAP
- TERMINATE PRE-EMERGE OR POST (NOT CROP INSURANCE APPROVED) WITH ROUNDUP OR ROLLER CRIMPER

NEXT STEPS IN SOYBEANS?

- WEED WIPER ATTACHMENT FOR SPRAYER?
 - WOULD ALLOW USING ROUNDUP FOR CR BURNDOWN IN NGMO SOYBEANS
 - WOULD KILL AND MELT DOWN CR MUCH FASTER THAN SELECT MAX
 - ROUNDUP MUCH LOWER COST THAN USING SELECT MAX
- 80' BOOM COST \$6500
 - COST SAVINGS OF ROUNDUP VS SELECT
 - \$12/AC SAVINGS (542 ACRE B/E)?



NEXT STEPS IN SOYBEANS?



- ROLLER/CRIMPER
 - REQUIRES HIGHER SEEDING RATES TO BE MORE EFFECTIVE
 - EXPENSIVE (42' QUOTED \$45K)
 - ALLOWS FOR BETTER SUNLIGHT AND SOONER
 - MECHANICAL VS CHEMICAL WEED MANAGEMENT
 - DIFFERENT "MOA"
 - BETTER FOR THE SOIL AND BIOLOGY?

COVER CROPS IN WHEAT



- OPTIONS NEARLY UNLIMITED VS FALL
 - MID JULY HARVEST TIMING
 - FALL FORAGES/DIVERSE MIXES
- BEST OPPORTUNITY FOR MAXIMIZING YOUR INVESTMENT
 - TACK ON COUPLE EXTRA MONTHS OF GROWTH
- 2ND CROP OF WHEAT SEEDED THIS FALL SO STILL FIGURING OUT BMP'S

CEREAL RYE AS WEED CONTROL

IN ROUNDUP READY (ENLIST) AND NON-GMO SOYBEAN SYSTEMS

ECONOMICS OF CEREAL RYE AS WEED CONTROL

RR STANDARD PROGRAM

- PRE PROGRAM - \$42
 - FIERCE XLT 4 OZ 27.92
 - ROUNDUP 16 OZ 3.13
 - 2,4D 1 PT 2.60
 - ADJUVANT 4.23
- POST PROGRAM - \$41
 - ENLIST ONE 2 PT 14.64
 - ROUNDUP 32 OZ 6.26
 - DUAL 1.3 PT 12.46
 - ADJUVANT 3.52

TOTAL - \$83/AC

RR CEREAL RYE

- SEED - \$8
- PLANTING - \$15
- PRE PROGRAM - \$32
 - FIERCE XLT 4 OZ 27.92
- RYE BURNDOWN - \$12
 - ROUNDUP 32 OZ 6.26
 - ADJUVANT 2.12
- POST PROGRAM - \$24
 - ROUNDUP 16 OZ 3.12
 - DUAL 1.3 PT 12.46
 - ADJUVANT 4.23

TOTAL - \$91/AC

ECONOMICS OF CEREAL RYE IN RR SOYBEANS



- \$8/ACRE OVERALL INCREASE BY INCLUDING A COVER CROP INTO YOUR RR SOYBEAN ROTATION
 - IL OFFERS \$5/AC CROP INSURANCE DISCOUNT, PROGRAMS IN NE?
 - CARGILL PAYING \$10/AC UP TO 200 ACRES FOR USING COVER CROPS
 - MORE TALK OF CARBON PAYMENTS BASED ON MANAGEMENT PRACTICES
- \$8 BUYS NUTRIENT SEQUESTRATION, WATER HOLDING CAPACITY, INCREASED BIOLOGICAL ACTIVITY, LOOKS FROM THE NEIGHBORS AND YOUR RETAILER

ECONOMICS OF CEREAL RYE AS WEED CONTROL

NGMO STANDARD PROGRAM

- PRE PROGRAM - \$42
 - FIERCE XLT 4 OZ 27.92
 - ROUNDUP 16 OZ 3.13
 - 2,4D 1 PT 2.60
 - ADJUVANT 4.23
- POST PROGRAM - \$53
 - PREFIX 2 PT 16.15
 - SELECT MAX 12 OZ 11.80
 - DUAL 1.3 PT 12.46
 - ADJUVANT 8.75

TOTAL - \$95/AC

NGMO CEREAL RYE

- SEED - \$8
- PLANTING - \$15
- PRE PROGRAM - \$32
 - FIERCE XLT 4 OZ 27.92
- RYE BURNDOWN - \$25
 - SELECT MAX 12 OZ 12.46 *****
 - ADJUVANT 8.75
- POST PROGRAM - \$16
 - DUAL 1.3 PT 12.46

TOTAL - \$96/AC

ECONOMICS OF CEREAL RYE IN RR SOYBEANS

- STANDARD RR PROGRAM \$83
- NGMO + CC PROGRAM \$96
 - \$13/AC ADDITIONAL HERBICIDE COSTS

- ASSUMING \$11.90 FALL SOYBEANS (AS OF 2/9)
 - NGMO +1.40 PREMIUM
 - \$70/AC @ 50 BU/AC
 - \$84/AC @ 60 BU/AC
 - \$98/AC @ 70 BU/AC
- \$84 PREMIUM
- \$13 EXTRA HERBICIDE
- + \$20 SEED SAVINGS
- = \$91 PROFIT POTENTIAL WITH NGMO
 - NON-GMO CAN GIVE UP 6.8 BU YIELD AND BREAKEVEN ON PROFIT

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