
PRE-ASSESSMENT

QUESTIONS AND RESULTS

Q1 No-till drills are primarily designed to plant what type of seed?

- Larger seeds, such as corn and sunflowers
- Smaller seeds, including cereal rye and wheat
- All types of seeds

Question focus

No-till Equipment

24% of Participants answered the question correctly.

Q2 Heavy soils with a plow plan or restrictive layer should consider _____ before transitioning to no-till.

- Planting a cover crop containing only tillage radish
- Deep Ripping
- Vertical Tillage

Question focus

No-till Preparation

41% of Participants answered the question correctly.

Q3 Farmers that were accustomed to incorporating manure using tillage should consider adjusting fertilization by _____.

- Switching to Urea-based fertilizer
- Adding pop-up fertilizer
- Broadcasting manure during hot, dry weather conditions

Question focus

Nutrient Management

43% of Participants answered the question correctly.

Q4 What is one of the biggest differences between no-till equipment and conventional planting equipment?

- Different Opening Mechanism (Disks vs Bits)
- More down-pressure/down-force applied
- Different Closing Mechanisms (Tines vs Wheels)

Question focus

No-till Equipment

54% of Participants answered the question correctly.

Q5

Planting green refers to ___?

- Using zero herbicides and all non-gmo corn and soybeans
- Planting the cash crop into standing cover crop that has not been terminated yet
- Incorporating the cover crop as a green manure by tillage practices

52% of Participants answered the question correctly.

Question focus

Cover Crop Termination

Q6

The seed trench or seed slot is typically formed by the ____.

- Slot Hoe
- Opening Disk
- Wheeled Trencher

53% of Participants answered the question correctly.

Question focus

No-till Equipment

Q7

Hair-pinning is typically caused by ____.

- Inadequate bearing grease
- Wet planting conditions
- Tight turns around field borders
- Poor blade rotation

42% of Participants answered the question correctly.

Question focus

No-till Equipment

Q8

True or false: Farmers do not need to add inoculant to legume cover crops planted after soybeans harvest

- True
- False

50% of Participants answered the question correctly.

Question focus

Cover Crop Application

Q9

Herbicide carryover is the highest concern after ...?

- Wet growing seasons
- Dry growing seasons
- Grain corn harvest
- Wheat harvest

61% of Participants answered the question correctly.

Question focus

Cover Crop Selection

Q10

VNS seed is?

- Variable Nutrient Standards
- Variety Not Stated
- Vetch (Non-Standard)
- Viable Noxious Seed

43% of Participants answered the question correctly.

Question focus

Cover Crop Selection

Q11

Aerially applied ryegrass should be ---?

- Inoculated
- Coated
- Deburred
- Pre-Moistened

47% of Participants answered the question correctly.

Question focus

Cover Crop Application

Q12

How many acres per day can a farmer plant with a 10' no-till drill?

- 5-10 acres
- 25-50 acres
- 100-200 acres
- 300-500 acres

67% of Participants answered the question correctly.

Question focus

Cover Crop Application

Q13

What cover crops cannot be terminated using a roller-crimper?

- Cereal Rye
- Ryegrass
- Triticale
- Hairy Vetch

27% of Participants answered the question correctly.

Question focus

Cover Crop Termination

Q14

True or False: Corn should be planted 4-6 days after cover crops are terminated with herbicides, when cover crops are still moist.

- True
- False

*Question focus***No-till Preparation**

40% of Participants answered the question correctly.

Q15

Glyphosate is more effective under what conditions?

- When applied during the late afternoon and evening
- When applied during cool, cloudy conditions
- When applied during warm, sunny conditions
- When applied to cover crops in reproductive phases

*Question focus***Cover Crop Termination**

51% of Participants answered the question correctly.

SUMMARY

On average, applicants correctly answered 48% of all questions.

The median number of correct responses was 6/15.

The results of the pre-assessment were normally distributed with some participants answering all questions correctly and some applicants answering no question correctly.

Conclusion: The educational program would need to cover very basic details about no-till and cover crop implementation. A large number of ASPs do not know foundational knowledge.