

# Bt Corn Training Exam

## Please circle the correct answer

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1) Corn can be genetically engineered to be resistant to glyphosate (Roundup).

- A) True                      B) False

2) Bt that is topically applied is a mixture of several different types of crystalline and vegetative proteins that cause the insect to stop feeding and then die.

- A) True                      B) False

3) Which of the following practices is most likely going to work to prevent Bt resistance?

- A) use Bt primarily on corn fields grown for grain and don't use more than three years in a row
- B) alternate Bt corn with another mode of action at least every five years
- C) use all appropriate refuges every year
- D) all of the above

4) Bt field corn lines are available that control European corn borer, black cutworm, and rootworm.

- A) True                      B) False

5) To meet your refuge requirement, you can just mix one bag of corn seed in with four bags of Bt corn and that will give you your 20% refuge.

- A) True                      B) False

6) How do the Bt field corn and sweet corn resistance management requirements differ?

- a) they don't differ – they are the same
- b) sweet corn pollen can move farther so the refuges are larger
- c) there are no varieties of Bt sweet corn
- d) the grower must mow the stalks down or disc the field within a month of sweet corn harvest

7) Which of the following is NOT a requirement of refuge management?

- a) Bt corn and the refuge corn must be planted at the same time
- b) Bt corn and the refuge corn must be the same hybrid maturity
- c) Bt corn and the refuge corn must be from the same company
- d) a map of the refuge must be available to BPC or industry inspectors

8) If your neighbor has corn next door to your farm, and you are on good terms, you can use his field as your refuge corn.

- A) True                      B) False

9) You are a grower who has had to replant fields in the past following cutworm damage. You have selected to grow a Bt corn with the Herculex trait to reduce the likelihood of this continuing to be a problem. What refuge planting method would make it the most difficult to *scout to see if the technology is working for you*?

- a) block
- b) strips
- c) perimeter
- d) none of these – you can't spray the refuge

10) Scouting your fields will not be necessary if you plant Bt corn because all the seeds contain Bt and if the pest is present they will be killed.

- A) True
- B) False

11) If you are planting Bt corn for rootworms, why must your refuge be within the field or immediately adjacent to the field.

- a) the EPA just doesn't want to see growers use the technology
- b) rootworms are moths that don't travel far
- c) rootworms are beetles and don't travel far
- d) because people will want to use their neighbor's corn as refuge

12) If an organic grower has corn within 500 feet of your Bt corn and he/she requests notification of Bt corn use, you as a Bt corn producer must take action to reduce the potential for pollen drift by planting a block refuge between the two corn fields, even if the grower is using refuge in the bag corn.

- A) True
- B) False

13) The EPA and the BPC have recently approved the use of Bt corn hybrids that are called refuge in the bag (RIB) corn. This corn requires no structured refuge because: (please select the most correct answer).

- a) The EPA and BPC have given up on trying to get growers to use a refuge because it is too costly to oversee and do compliance checks
- b) Refugia is not longer working so why bother
- c) The plant is now producing more than one toxin and so if the insect becomes resistant to one of the proteins the other one will get it – so no need for refuge.
- d) The need for more corn production is more important than insect resistance management

14) To date, applied research conducted in Maine over the past four years has not shown significant differences in yield, forage quality, or mycotoxin levels where Bt corn was grown next to corn with similar genetics without the Bt trait.

- A) True
- B) False

15) What difference between Bt corn and corn of similar genetics but without the Bt trait have we been able to consistently show over the last four year period.

- e) significantly lower cutworm activity
- f) significantly fewer holes in the stalk and leaves in Bt corn compared to non-Bt corn
- g) lower mycotoxin levels in Bt corn
- h) significantly higher yields and improved forage quality.

16) A certificate of training is still required of Bt corn even though RIB corn is now in use.

- A) True
- B) False

17) The two seed blends for RIB corn are 95 and 90% Bt corn with 5% and 10% blends of identical varieties with without Bt.

- A) True                      B) False

18) Seed companies have done extensive evaluations of these new pyramided proteins and are sure that they will be effective on corn pests at least if not more effectively than the 20% structured refuge

- A) True                      B) False

19) if you are using seed that with corn that produces Cry1F (for cutworm control), you never need to scout your field because the toxin kills 99.99% of the cutworms that feed on the plants.

- A) True                      B) False

20) Which of the following statements is the most correct if I am debating using Bt corn technology or not

- a) you are most likely to see significant differences in forage quality between Bt corn and non Bt corn
- b) you are most likely to see yield differences between Bt corn and non Bt corn
- c) you will likely see yield benefits with Bt corn on very wet years
- d) you will more likely see more yield benefit in grain corn than with silage corn

Send or fax the completed exam to the Maine Board of Pesticides Control

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