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## 2005 Canola Watch Report Agronomic Exam – Answers

Name: \_\_\_\_\_

CCA #: \_\_\_\_\_

Phone #: \_\_\_\_\_ E-mail: \_\_\_\_\_

*Please return answers by fax (204-942-1841) to the Canola Council of Canada  
Deadline for submission: December 15<sup>th</sup>, 2005*

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Circle the BEST answer to questions listed on separate pages:

1. a b c d
2. a b c d
3. a b c d
4. a b c d
5. a b c d
6. a b c d
7. a b c d e
8. a b c d
9. a b c d
10. a b c
11. a b c d e
12. a b c d e
13. a b c d
14. a b c d

- 15. a b
- 16. a b c d
- 17. a b
- 18. a b c d
- 19. a b c d
- 20. a b c d
- 21. a b c
- 22. a b
- 23. a b c d e
- 24. a b c d
- 25. a b c d
- 26. a b c d
- 27. a b c d
- 28. a b
- 29. a b c d
- 30. a b c d e
- 31. a b c d
- 32. a b c d
- 33. a b c d
- 34. a b c d
- 35. a b c

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## 2005 Canola Watch Report Agronomic Exam – Questions

*(Remember to use the answer page)*

1. Canola that has been left in the swath over winter can still be used as a feed ingredient, provided that care is taken to watch for:
  - a) Rodent droppings and rusty grain beetle in the harvested canola seed
  - b) Mould grain beetle and the foreign grain beetle
  - c) Frost damaged kernels and nitrates
  - d) Crustaceans
  
2. Following a frost, producers should ascertain whether there are enough healthy plants left to warrant leaving the stand instead of reseeding. Consider individual plants as being ‘survivors’ if:
  - a) Plants are dark green 12 to 24 hours after the frost
  - b) Any amount of green colour at the growing point in the centre of the frozen leaf rosette is present 24 hours after the frost
  - c) Any amount of green colour at the growing point in the centre of the frozen leaf rosette is present several days after the frost
  - d) At least 2/3 of the aboveground tissue is green
  
3. Following a frost, producers should leave the stand if there are living canola plants to a level where there is a plant stand with:
  - a) 2 to 4 plants per square meter (m<sup>2</sup>)
  - b) 2 to 4 plants per square foot (ft<sup>2</sup>)
  - c) 2 to 4 plants per ¼ square meter (m<sup>2</sup>)
  - d) At least 25% of the stand
  
4. The ideal plant populations for canola are:
  - a) 7 to 14 plants per square meter (m<sup>2</sup>)
  - b) 7 to 14 plants per square foot (ft<sup>2</sup>)
  - c) 200 plants per square foot (ft<sup>2</sup>)
  - d) 2 to 4 plants per square foot (ft<sup>2</sup>)

5. Which of these insects is a cutworm?

a)



b)



c)



d)



6. The action threshold for flea beetles is:

- a) When the seedlings are 25% defoliated
- b) When the seedlings are 50% defoliated
- c) When the growing point has been killed
- d) When 25% of the plants have been defoliated to 25%

7. Excessive moisture can lead to nitrogen loss. Growers may want to consider top dressing additional nitrogen to compensate for this as long as they consider the following:

- a) If the excess water recedes fairly quickly and the crop recovers
- b) If the growers were conservative with their initial fertilizer applications
- c) If the grower conducts crop tissue testing
- d) If the N and S fertilizer is applied before bolting stage
- e) All of the above

8. Cabbage seedpod weevils were reported to be heavy in initial sweeps of bolting canola near Lethbridge, AB.
  - a) Begin checking at rosette stage and spray if there are 10 insects per square foot (ft<sup>2</sup>)
  - b) Begin checking at bud stage and spray if there are 10 insects per square foot (ft<sup>2</sup>)
  - c) Begin checking at early flowering stage and spray if there are 3 to 4 insects per sweep
  - d) Begin checking at pod stage and spray if there are 3 to 4 insects per pod
  
9. Premature bolting has a negative impact on canola yield because:
  - a) The plants will not have a full root system at the time of podding
  - b) The plant will have a low leaf area index and this means lower yield potential
  - c) The plants will have a high percentage of sterile flowers
  - d) Disease will be more prevalent
  
10. The two most common causes of blossom blasting are:
  - a) Environmental stress or excessive weed populations
  - b) Environmental stress or early bolting
  - c) Environmental stress or previous insect feeding damage
  
11. Growers who are considering whether to spray for Sclerotinia should use the following guidelines to make sure that spraying is warranted:
  - a) Apothecia populations exceed 1 to 14 per square meter (m<sup>2</sup>)
  - b) At least 10% of plants are infected with lesions
  - c) The crop canopy is heavy, the yield potential is high
  - d) Crop canopy is light so that penetration of the fungicide will occur
  - e) All of the above
  
12. Broadcast seeding was required in some areas due to wet weather. The most serious fertility issues with broadcast seeding/fertilizing onto wet soil are:
  - a) Denitrification of the nitrogen and excessive K
  - b) Denitrification of the nitrogen and inefficient placement of zinc
  - c) Denitrification of N and inefficient placement of P
  - d) Boron toxicity
  - e) All of the above

13. The optimum stage to swath for both yield and quality is:

- a) Up to 10% seed colour change
- b) Up to 60% seed colour change
- c) 8 to 12% seed moisture
- d) 5% of pods will shatter if bashed against the hood of the truck

14. The optimum stage to swath a crop of Argentine canola that has some plants prematurely ripening due to the crop being damaged by hail or disease is to:

- a) Time the swathing between the ideal timing for swathing for the sick portions of the crop and the ideal timing for the healthy portion
- b) Time swathing according to the stage of development for the healthy plants and don't worry about the prematurely ripened plants
- c) Time swathing according to the stage of development for the healthy plants and swath when there is dew so that shattering is mitigated
- d) Straight cut the crop

15. Which of these photos is Alternaria leaf spot?



16. Cabbage seedpod weevils numbers were heavy in canola fields near Lethbridge, AB. Growers needed to be ready to spray when:

- a) There were 3 to 4 weevils per sticky trap at flowering
- b) There were 3 to 4 weevils per canola plant at flowering
- c) There were 3 to 4 weevils per sweep at flowering
- d) There were 3 to 4 weevils per square meter (m<sup>2</sup>)

17. Cabbage seedpod looks like this:

a)



b)



18. Apply glyphosate as a preharvest treatment at the following stage:

- a) When the crop has 30% or less seed moisture content, when at least 10% of the seed is no longer green
- b) When the crop has 30% or less seed moisture content, when most of the seed is no longer green
- c) When the pods on the main stem are brown
- d) When the seed is 8 to 12% moisture

19. Which of the following statements is FALSE?

- a) Canola can be straight cut if the canopy is well knitted and slightly lodged to reduce the chance of pod shelling and pod drop
- b) Canola can be straight cut if the crop is relatively free from diseases
- c) Straight cutting to avoid late season hail is a good idea because the hail will cause less damage to standing crops than swathed crops.
- d) All of the above

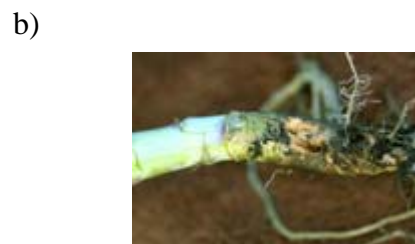
20. Use of late season insecticides for Bertha armyworm meant that care was needed to ensure that preharvest intervals were observed. The PHI ends when:

- a) The crop is combined after swathing
- b) The crop is swathed or straight cut
- c) The crop begins to shatter
- d) The crop is binned

21. Crops with black spot lesions (due to *Alternaria*) covering a large proportion of pod surfaces are poor candidates for:

- a) Reseeding to canola for the following three seasons
- b) Rovral applications
- c) Delayed swathing or straight combining due to shattering risk

22. Which photo is clubroot?



23. Which of the following statements is true about clubroot?

- a) There is lower clubroot severity under reduced tillage
- b) Meticulous sanitation helps manage the disease
- c) Five to seven years rotation out of clubroot susceptible crops is required
- d) All of the above
- e) None of the above

24. Post harvest scouting can help identify issues for canola in subsequent years. Some of the problems that can be scouted for post harvest include:

- a) Flea beetles and Bertha armyworms
- b) Fusarium wilt, Sclerotinia, blackleg and clubroot
- c) Aphids, Sclerotinia and blackleg
- d) None of the above

25. For long term storage, canola should be kept at:
- a) 13 % moisture and 10°C
  - b) 13°C and 10 % moisture
  - c) Less than 15 °C and 8% moisture
  - d) Less than 8 °C and 15% moisture
26. Regarding hail damage, which of the following statements is FALSE?
- a) When buds and flowers are lost due to hail damage, the plant recovers rapidly by the development of flowers that normally would have been aborted.
  - b) *B. napus* varieties have shown a greater ability to recover from loss of flowering branches due to hail loss than *B. rapa* varieties.
  - c) Canola plants injured in the seedling stage may have either one or both cotyledons missing,
  - d) If hail strikes during pod filling or ripening, the plant will recover rapidly
27. Weeds that emerge after the crop emerges usually are not as competitive as those that emerge at the same time or before the crop. To maximize yield payback from weed control. Growers should:
- a) Concentrate on multiple spray approaches to get as many weeds as possible
  - b) Wait for late emerging thistles and then get both perennial and annual weeds at the same time
  - c) Concentrate on early emerging weeds by using (i) preseeding burnoff, and (ii) early applications of in-crop sprays applied to weeds that emerge until the 4 leaf stage of canola
  - d) Sow canola in weed free fields
28. Is this statement TRUE or FALSE – “For storage longer than five months, canola should be binned at a maximum of 8% moisture”.
- a) True
  - b) False
29. To maximize availability of sulphur in the year of application of this fertilizer, the best form to use is:
- a) Elemental forms
  - b) Metabisulfite and bis-trisulphate forms
  - c) Sulphate forms
  - d) All of the above

30. The best time to do fall soil testing for nitrogen is:
- a) When the soil temperature drops below 5°C – regardless of which crop stubble is present
  - b) Between mid-September and freeze-up if the crop stubble is from this years cereal
  - c) As late as possible if this years crop stubble is canola, potatoes or pulses
  - d) Both a and b
  - e) Both b and c
31. Using registered pesticides is important because:
- a) Overseas customers are stepping up analysis of residues and the presence of unauthorized products may result in loss of the market
  - b) It is illegal to do otherwise
  - c) There are risks of unanticipated adverse consequences to the crop when unregistered, under-researched products are used
  - d) All of the above
32. The optimal seeding depth for canola is:
- a) ½ to ¾ of an inch
  - b) ¾ to 1.5 inches
  - c) To moisture to a maximum of 2.5 inches
  - d) ¼ to ½ inch
33. The optimal seeding rate for canola is:
- a) 5 lbs/ac
  - b) 10 lbs/ac
  - c) Enough to establish 7 to 14 plants per (m<sup>2</sup>)
  - d) Enough to establish 7 to 14 plants per (ft<sup>2</sup>)
34. The best glyphosate tank mix for fields that are (i) to be sown in the coming days with canola and (ii) populated heavily with wild buckwheat is:
- a) Glyphosate plus Express
  - b) Glyphosate wit Banvel
  - c) Glyphosate with 2,4-D
  - d) None of the above

35. Which photo is a Lygus bug?

a)



b)



c) Both of these are different stages of Lygus bugs