

Effects of fungicide, seeding date and seedling age on clubroot severity, seedling emergence and yield of canola

DIRECTIONS:

1. Read the self-study exam carefully.
2. Answer the questions to this self-study exam by circling the best answer for each question.
3. Complete the self-study exam registration form.
4. Fold and place this self-study examination page in an envelope.
5. Enclose a payment for processing fees of \$14.95 for CAAR Members, and \$24.95 for non-members, plus GST or HST.
6. Mail your self-study exam and payment to: **The CCA Self-Study Exam**

c/o Canadian Association of Agri-Retailers
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SELF-STUDY EXAM:

After reading the pre-approved self-study article, please answer this 10-question exam and return it to CAAR. An exam score of 70 per cent or higher will earn you one credit in Pest Management.

You can take this exam online! Go to **caar.org** and click on Training to access the online article and exam. Contact the CAAR office at 800-463-9323 or info@caar.org for your Member login if you don't have it already.

1. **Several clubroot management strategies are used in the production of cruciferous vegetables, including:**
 - A. Aerial application of fungicides
 - B. Amendment with lime to increase soil pH
 - C. Manual removal of clubroot galls
 - D. Drench application of bleach
2. **Why are the treatments for horticultural crops impractical for canola?**
 - A. Too costly
 - B. Rates are too toxic for canola
 - C. Rates would be ineffective on canola
 - D. Products are only available in limited quantities
3. **The field-to-field spread of clubroot is usually initiated from what source?**
 - A. Wind
 - B. Insects
 - C. The field entrance
 - D. Rain
4. **What clubroot susceptible canola cultivar was used in all of the fungicide seed treatment experiments?**
 - A. 34-65RR
 - B. 65-34RR
 - C. 45H29
 - D. 45H28
5. **What is the active ingredient(s) in Dynasty 100 FS?**
 - A. Flusulfamide
 - B. Carbathiin+thiram
 - C. difencazole+metalaxyl+fludioxonil
 - D. Azoxystrobin
6. **What does ID stand for in this experiment?**
 - A. Identity of disease
 - B. Index of disease
 - C. Incidence of dilution
 - D. Index of dilution

7. In the seeding date trials, how did canola yield at both sites measure in the early-seeded plots compared to the other seeding dates?

- A. Significantly higher
- B. Significantly lower
- C. Similar to mid season, lower than late season
- D. No difference

8. How did the five fungicides tested in the seed treatment experiment impact clubroot disease severity (ID) relative to the untreated control?

- A. Three of the five significantly decreased severity
- B. Three of the five significantly increased severity
- C. No significant impact
- D. All five significantly decreased severity

9. What product was suggested as “the most logical tool for the control of seed-borne clubroot”?

- A. Nebijin™ 5SC
- B. Helix Xtra
- C. Dynasty 100 FS
- D. Sedaxane

10. The effect of 80-fold Nebijin dosages could be achieved by what other application dosage?

- A. 1-fold
- B. 20-fold
- C. 40-fold
- D. 80-fold

SELF STUDY EXAM REGISTRATION FORM:

(Please note: You must have your CCA Certification number on the form in order to be eligible for the CEU.)

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I approve payment by credit card and certify that I alone completed this self-study course, recognizing that an ethics violation may revoke my CCA status.

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This exam issued April 2017, expired April 2020

EXAM EVALUATION FORM

(PLEASE TAKE A MOMENT TO PROVIDE US WITH SOME FEEDBACK ON THIS EXAM):

Rating Scale: 1 = Poor 5 = Excellent

Information presented will be useful in my daily crop advising activities. 1 2 3 4 5

Information was organized and logical. 1 2 3 4 5

Graphics/Tables were appropriate and enhanced my learning. 1 2 3 4 5

This article addressed the stated competency area and performance objective(s). 1 2 3 4 5

Topics I would like to see addressed in future materials: _____