

The effect of the environment on the grain colour and quality of commercially grown Canada hard white spring wheat, *Triticum aestivum* L. 'Snowbird'

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
628-70 Arthur St., Winnipeg, MB R3B 1G7

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 Crop 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. **Interest in hard white wheat is primarily from international customers, particularly in which region?**
 - A. Latin America
 - B. Asia-Pacific
 - C. Eastern Europe
 - D. Middle East
2. **Which hard white wheat cultivar was used in the study?**
 - A. Vista
 - B. Iceberg
 - C. Whitehawk
 - D. Snowbird
3. **Grain and wholemeal colour were measured to determine?**
 - A. L* (brightness)
 - B. a* (redness)
 - C. b* (yellowness)
 - D. All of the above
4. **The effect of year accounted for what percentage of the variation on grain parameters?**
 - A. 0.8%-23.4%
 - B. 15.4%-48.3%
 - C. 29.4%-79.8%
 - D. 54.7%-93.4%
5. **Which agro-climatic zones on average were the driest in Western Canada over the five-year period?**
 - A. #42 & #32
 - B. #11 & #12
 - C. #23 & #53
 - D. #51 & #61
6. **Which agro-climatic zones had the highest mean mildew levels?**
 - A. #83 & #31
 - B. #61 & #12
 - C. #23 & #53
 - D. #83 & #73

7. Grain yield is affected primarily by _____?
- A. Frost damage
 - B. Mildew
 - C. Kernel weight
 - D. Kernel size
8. Which agro-climatic zones produced the brightest and most yellow grain?
- A. #11, #12, #73
 - B. #61, #42, #83
 - C. #31, #32, #22
 - D. #51, #42, #12
9. Which characteristics of the whole meal samples were affected by agro-climatic zone?
- A. Brightness and redness
 - B. Redness and yellowness
 - C. Brightness and yellowness
 - D. Yellowness and redness
10. Agro-climatic zones located in which areas produced darker grain with more red and yellow seed appearance?
- A. Lower latitudes and lower longitudes
 - B. Higher latitudes and higher longitudes
 - C. Lower latitudes and higher longitudes
 - D. Higher latitudes and lower longitudes

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.

Signature: _____

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: _____					