

Development of Precision Ag Specialty for Certified Crop Advisers (CCAs)

Assessment Procedures: Writing Performance Objectives

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Photo credit Univ. of MN



CCA Specialty Exam and Procedures

- ▶ What are we going to do today?
 - ▶ Goals and Objectives for the credentialing portion of the Precision Ag Specialty Exam program - moving beyond the CCA baseline exams.
- ▶ Structure of Performance Objectives
 - ▶ Proficiency Areas.
 - ▶ Competency Areas
 - ▶ Performance Objectives.

CCA Specialty Exam and Procedures

- ▶ Working together to build and manage a quality program that is dynamic and has the inherent flexibility to change as needed.
- ▶ Input from subject matter experts – YOU!



Photo by Rob Routledge

~my main role is to advise and facilitate~

- Work on POs is inclusive.
- PO development is done via on-line meetings, but also email.
- This is not a simple task and takes thought and discussion.
- State of the Practice.



Photo by D. Gibas, 2009

The Baseline:

ICCA Exam Program & CCA Certification

Two Part Credentialing Process:

- International Certified Crop Adviser Exam.
 - Written and maintained by the EPC.
 - 150 Multiple Choice Questions
 - Based on – and linked to – Performance Objectives (POs). Can also be referred to as the general state of the practice.
- Local Board Exams (30+)
 - 100 Multiple Choice Questions.
 - Tests specific State, Province or Regional knowledge – also based on a set of POs.




CCA Credential

- Both the ICCA and Local Board exam must be passed to be certified as a CCA.
- Exams can (and are) taken more than once.
- Must pass the exam, not just sections.
- After being granted a CCA, CEUs are required.



Exams and Performance Objectives

- Credentialing exams are developed/written to determine whether an individual is competent of to practice in a particular profession.
- The exam associated with the Precision Ag Specialty will also be a credentialing exam.
 - The POs we develop need to provide the “State of the Practice” for the CCA wanting to be a specialist in Precision Ag.
 - The exam is directly linked to the POs.



Exams are based on Performance Objectives (POs)

- In the case of the CCA Exams (both the ICCA and Local Boards) there are basic proficiency areas that lay out required objectives.
- Proficiency Areas of all CCA Exams
 - Nutrient Management
 - Soil and Water Management
 - Pest Management
 - Crop Management



Performance Objectives

- POs are free to download from the CCA website for all exams.
- Major proficiency areas are divided into competency areas, with performance objectives within each competency area.
- Questions for the exam are written under performance objectives.

Example POs

Section 4: Crop Management 12

Competency Area CM-1. Crop Adaptation	12
Competency Area CM-2. Seed Quality	12
Competency Area CM-3. Crop Growth And Development Staging	12
Competency Area CM-4. Tillage Systems	12
Competency Area CM-5. Seeding Factors	13
Competency Area CM-6. Crop Utilization and Harvesting Quality	13
Competency Area CM-7. Cropping Systems	13
Competency Area CM-8. Safe Storage And Quality	14
Competency Area CM-9. Economics	14
Competency Area CM-10. Regulatory	14

Competency Area CM-2. Seed Quality

9. List advantages of pedigreed seed.
10. Describe the importance of the Canadian Seed Standards.
11. List factors used to select hybrids or varieties of corn, soybeans, wheat, barley, canola, alfalfa, and forage grasses.
12. Describe differences between seed germination and seed vigour for soybeans.

Competency Area CM-3. Crop Growth and Development Staging

13. Describe the major growth scales (for example, Zadok's) used to identify crop development stages of corn, soybeans, and cereals.
14. Describe the growth phases when corn, soybeans and spring canola are most affected by heat and/or drought stress.
15. Describe the growth phases when corn, soybeans, cereals and edible beans are most affected by herbicide and disease stress.



CCA-Precision Ag Specialist Credential

How will this be structured?

- Must be a CCA first – base level of knowledge.
- Education: up to date on CEUs.
- Overall exam to become a Specialist
 - An exam will establish the program and distinguish it and its certificants from others by defining and credentialing a “true” specialty.
 - Defined program and management.
 - CEUs (we will need to recommend).

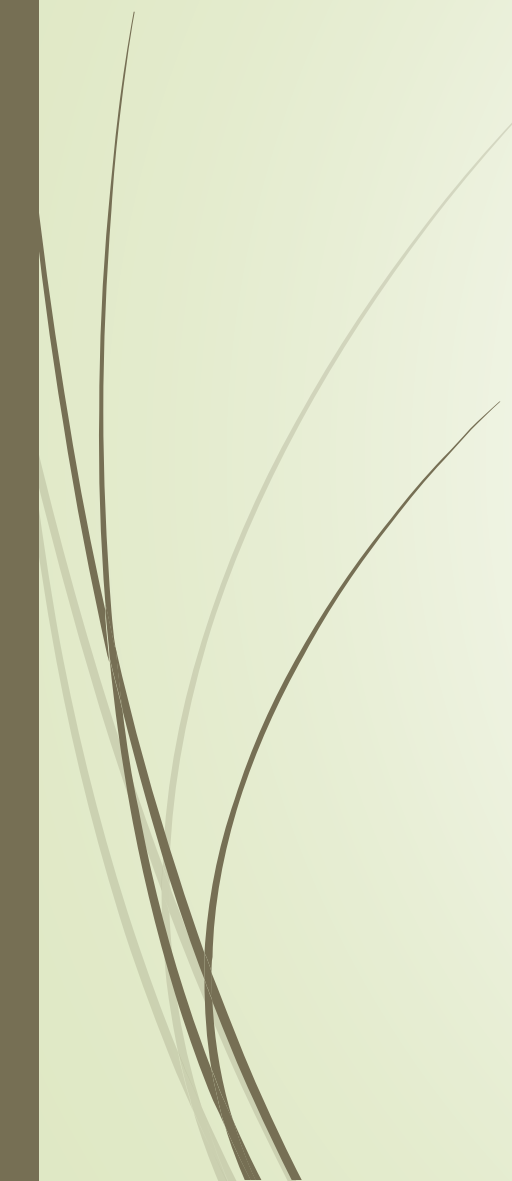


When considering POs, keep in mind the following:

- POs define the State of the Practice
- What does a person need to know in order to be a Precision Ag Specialist?
- Also:
 - Questions must be linked to the POs, so what does the exam committee need outlined to be able to formulate exam questions?
 - The PO document is the first reference we recommend to potential examinees for use as a study tool.



All ASA/SSSA Exams

- Consistency and Standardization Across all Exams.
 - Compliance with Accepted Standards for Credentialing Exams.
 - Operate and Maintain an Exam Program that is Legally Defensible.
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Summary Points

- CCA Program will launch the Precision Agriculture Specialty in 2018.
- A Precision Ag Committee is currently in place.
 - Make up of committee is academia, industry, private consultants, and NGO representatives.
 - Working on Performance Objectives, which should be complete this fall.
 - Exam writing will follow.
- Once POs are complete, will welcome review – please let me know if interested (email next slide).



Photo credit Schimmel and Pfenning, 2016

Moving Forward – Lets Look at POs

Contact me at any time with questions:

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