Qualitative Research Report

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Executive Summary
The Avant Marketing Group was commissioned to conduct virtual focus groups with both Certified Crop Advisors (CCA) and Certified Professional Soil Scientists (CPSS). Four CCA Groups and two CPSS Groups were conducted.

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<th>Date/Time</th>
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The research was designed to gain feedback regarding the certification programs, their benefits and value to assist the client in further program development and to increase participation. In addition, discussion points were added to include the review of specific websites and the annual conference.

CCA SUMMARY
1. Key trends that are changing agriculture and the way we farm include:
   - Precision agriculture is providing more detailed data to make key crop decisions.
   - Fewer but larger farms. There is a segment of farmers that now take more of a business perspective with their management with focus on profitability and return on investment.
   - Consumerism will have impact on agriculture. Key environmental and sustainability practices will be mandated by food processors.
   - A younger, more diverse generation is taking an active role in farm management decisions.
   - Agriculture is now global. U.S. agriculture is affected by agriculture around the globe.
   - Regulations may increase in the future.

2. Today’s crop advisor must have a wider range of skills to adapt technology to their business. While younger generation farmers, supported by precision ag technology, do not value the advisor as much as the older generation, larger operations depend on the advisor to interpret and translate the immense amount of data to make farm decisions.

3. Crop Advisors who embrace precision agriculture are enabled to use the technology to benefit their customers. As stated in one group, a crop advisor can use “Precision Agriculture” to transform it to “Decision Agriculture” for the customer.

4. Farmers have low awareness, therefore, see low value in certification. The crop advisor’s reputation and relationship with customers are more valuable that certification.

5. Ag retailers can be a great supporter of certification. Certification is a crop advisor/agronomist requirement with some retailers. The retailers see it as a competitive advantage in providing professional credentials.
6. Certification also thrives where licensing is a requirement. This was noted in California and many participants are hopeful that similar regulation could expand to other states.

7. In terms of certification mechanics, recent changes offering online webinars and remote testing are seen as improvements. Some participants question if the exam and ability to earn CEUs is too easy today. It was also suggested that there needs to be a digital format for the applications and the credential review process could be improved.

8. In terms of promoting certification, participants suggest that more focus should be placed on gaining endorsement from both manufacturers and retailers who could mandate certification for its crop advisor staff. Other participants feel that certification needs to be marketed to the Universities – noting that entry-level students with certification have an advantage in job seeking. It was also mentioned that social media outreach is important in reaching the younger audiences.

9. Overall, participants see the website as functional – mainly in reporting CEUs. Several suggested that the website should be more user friendly and it should be easier to record CEUs. It was also noted that the site does not include details concerning policy or process. Factual information on the website would assist in countering misinformation in the field. One participant suggested reviewing the Project Management Institute’s website as a model for future improvements.

10. There were few suggestions relating to value-added programs or benefits of certification. It was mentioned that the networking is important when discussing issues. It was also mentioned that there will a future demand in certifying sustainable grain at the elevator level – an opportunity for certified advisors.

11. The specialized certifications may be driven by market need, but the various certifications might be diluting the value of certification overall.
CCA Meeting Notes

2/2/21 – CCA Focus Group 6 p.m.
Number of Participants: 6

Key Trends or Factors that are changing agriculture and the way we farm

- Regenerative agriculture
- Variable rate technology and more precision in yield monitoring and plant populations – getting high-tech
- More focus on profitability and the bottom line. Return on investment is most important
- Environmental – changes in administration – more discussion around carbon, etc.
- Public perception from an environmental impact – water use, etc. Digital ag and biologicals are getting stronger
- With vegetable crops – drip irrigation is now most popular. More acres are using precision/digital crop management based on availability and reduced costs

Changes in the Role of Agronomists

- More digital information and aerial (GPS) photography has allowed some growers to make decisions without the assistance of an agronomist.
- Agronomist now needs to evaluate the selection of precision data companies. There is a need to determine what is best for each operation.
- Growers are looking for help from agronomists to wade through the large number of precision suppliers to select those that will assist in yield and profitability.
- Scouting reports are still important to growers.
- Larger farm operations are hiring their own agronomists.
- There are fewer independent retailers and farmers are not happy about having fewer choices. for their input purchases beyond the national retailers that are swallowing up the independents.

The Effect of Precision Agriculture

- Technology is a friend to the agronomist. Good agronomists see technology to raise the bar on their professionalism and service to their customers.
- Those that embrace the changes and adopt it, will benefit from it as well as their customers.
- More information, better information is easier to access. Gives the end-user better information to manage and be more efficient.
- Older customers will not spend the money for technology. Younger farmers are replacing agronomists with precision agriculture.
- California is still reliant on the agronomist.
- Most farmers still need the agronomist to interpret the data.
- Many farmers that totally relied on precision agriculture to make decisions, made bad decisions.
Certification – Initial Reasons to Become Certified

- Nutrient management was important at that time.
- Became independent – thought I needed certification.
- It was a new program that would support my credibility.
- Driven by nutrient capabilities and a CCA was mandatory to make recommendations.
- Gave me the confidence in what I was talking about as an agronomist.

Advice to Young Professionals Concerning Certification

- Provides more credibility and keeps you up to date.
- Good credential – a standard of professionalism. No real tangible value.
- I struggle to why I have certification. Farmers don’t ask if I am certified – never brought up.
  I would recommend to a young person to find a mentor – better experience and education than taking a bunch of tests. My actions and my personal brand have made more impact that certification.

Importance of Certification

- In California, you need to be licensed – unlike other parts of the country. The importance is with the ag retailer versus the farmer – adds to the credibility of the company.
- You need to prove your worth (know your trade) beyond just being certified. Reputation is most important.
- For younger agronomists, the certification does add to their credibility. For older agronomists, your reputation and relationship with the grower is more important than certification.
- Some ag retailers mandate certification with expert agronomy services. Some retailers rely on mentoring versus certification through training. Certification can provide confidence, but that can be accomplished through mentoring and training. Hands-on experience is most important – CCA is good groundwork but doesn’t necessarily define capabilities.
- There are poor CCA’s that cost farmers money. CCA really doesn’t have any “teeth” compared to a PCA.
- In California, all the big ag retailers require Certification for employment. Training seminars are normally full of young people – good to see them coming into the industry – more diverse than ever. CCA’s will be preferred versus non-CCA’s when retailers are recruiting.

Mechanics of the Certification Program

- It is a good program – not broke, wouldn’t fix it.
- It might be too easy to gain education credits through attending same meetings.
- Meetings for credit are good refresher courses – not much presented is new.
• Soil and water management credits are harder to gain.
• COVID has provided more credit programs online and through webinars.
• Original exam is not that hard. The standard is not that high. (Note that the passing rate is only 60%).
• Re-certification is much easier with all the programs now offered online. We will continue to see more online education opportunities – even beyond COVID.
• Re-certification and continued education are key to the value. Not all CCA’s are focused on keeping up-to-date and offering the best to customers.

Future of Certification
• Participants are not positive about the future of certification.
• The new administration and future regulation will determine the future of certification.

Increasing the Number of CCA’s
• Need to convince the manufacturers and retailers to make certification mandatory or a requirement at the state level.
• Certification is a confidence motivator – gives the agronomist more credibility. Unfortunately, there is no return on investment.
• Only holds value in those states that requires a CCA to make nutrient program recommendations. The new administration may impact the need – following California.
• Very few farmers are aware of the program. Many are looking for the cheapest.
• Certification can provide a knowledge assurance for the farmer but needs to be explained – you don’t really need a CCA anymore.
• The initials behind your name does not matter. My role is to make customers better farmers and businessmen – their results through me are most important.
• Experience is most important for young people – understanding the science of what we do – experience makes a stronger agronomist more than certification.
• The CCA testing program can reveal “what they don’t know” and can also build confidence in their trade.
• Best way to increase certification – market it to the Universities – entry-level students will have an advantage being certified.
• Social media outreach is important for the promotion of certification. There are social media personalities that have impact and should be considered. Communicate through the influencers.

Website
• Only used for reviewing CCA credits.
• Use the online database – would like better accessibility.
• Great way to report CEUs.
• The Q code is handy.
Additional Value Suggestions
- Network of agronomists is a strong value – when you have questions or want to discuss issues.

Society Membership
- Society is oriented towards academics – value the online database. Not oriented for people out in the field.

Summary Input
- Find a way to integrate the ag profession better with the regulatory side of the industry. If agencies could leverage certification to get their job done, it would increase the importance.
- Get it into the farmer’s mindset that certification adds value. Work on increasing farmers awareness of certification value – possibly through farm magazines.
- CCA Program has a huge challenge in terms of marketing. Don’t ignore social media – need to reach more people.
- Focus on the young people when they are in their academic stage. We need to create more buzz around it – we don’t promote ourselves in general.
- Partner with government industries such as the NRCS and somehow incentivize through their programs.
- Focus on young people – demonstrate that certification reflects that they are more well-rounded as agronomists.
2/2/21 – CCA Focus Group 8 p.m.
Number of Participants: 7

Key Trends or Factors that are changing agriculture and the way we farm

- Younger generation, sons and daughters are taking a more active role and are more tech savvy.
- Forces outside agriculture. Outside society has more questions regarding the environment and sustainability – this will drive change.
- Agriculture has been the target of misconceptions leading to “hot topics”. People are starting to do more research (COVID driven) and are becoming more open-minded about agriculture.
- Two main factors – precision agriculture and sustainability. Sustainability is being driven by the consumer and major retailers.
- Digital side of everything is what everyone is looking at – convenience of gaining data from the cell phone in your hand – makes decisions easier.
- Younger farmers are doing a lot of things from home using technology.

How has the Role of Agronomist Changed?

- Agronomist is more removed from the input sales. More independent, third-party consultants.
- Digital is a fantastic tool – we have yet been able to drill down through all the data layers – the agronomist is able to interpret the data through this information overload. Farmers are looking for a “human” to provide that guidance and to make crop management decisions.
- We are now more involved at the nutrient level – writing nutrient management plans enforced by the government agencies.
- Independents have an advantage since they don’t need to push crop inputs if they are with an ag retailer.
- The role of the agronomist is in demand – regardless of the source. Farmer will select agronomy assistance that they trust – one that has the knowledge to help them.
- Agriculture runs on good knowledge – which comes from good agronomy.
- Customers are looking to retail agronomists to be product managers in managing all crop management issues. I can support new products that are a huge benefit for growers.

Precision Agriculture

- It’s a friend to agronomist – allowing me to put more dollars in the farmer’s pocket.
- With the increased amount of data, producer still needs a human being to interpret the data.
- Farmers are becoming more adept at using technology.
Generational Discussion
- Young farmers do not value the role of agronomist as much as the older generation.
- With consolidation occurring along with the older generation retiring, the role of the agronomist with larger farms is going to grow in demand.

Initial Certification
- Coming out of college, saw certification to demonstrate my qualifications. It became a great networking tool.
- Certification was a requirement of my employer. It sets you apart from co-workers and others – shows that you have the knowledge for the job.
- It was the new thing on the block – it is a great networking opportunity and shows that you are willing to go more beyond in taking the test and maintaining certification.
- Out of college – something I just wanted to do.

Value of Certification
- Older farmers value it – even ask if you have certification. Many younger farmers don’t even know about certification.
- Ag retailers can be a good driver for certification. But there is pressure on those CCA’s to promote the company’s product – which may not be in the best interest of the farmer.
- Some ag retailers may push their own product – but CCAs take their ethics code to heart and work independently of product sales. This adds credibility to the CCA.

Certification Mechanics
- It used to be more difficult to gain certification. State requirements could be different and an issue in the past. The system works well. The online classes are a big improvement.

Website
- I can do what I need to do on the website.
- Website is good in logging credits and looking up information.
- Some issues of not having CEUs showing up.

Ways to Increase Number of Certified Agronomists
- Show data that reflects employers valuing the certification – retailers and large farmers.
- More encouragement at the University level and with the professors.
- Keep in mind that there are many so-called “agronomists” are in management and many aren’t directly active with farmers – therefore, don’t need the certification.
- To farmers – certification demonstrates commitment of delivering the best knowledge for agriculture decisions. Our goal is to make farmers profitable – certification ensures that we are looking out for their best interests.
• Farmers need to understand the criteria and commitment to education that is needed for certification.
• For students – CCA is a good framework for both continuous learning and networking. Encourage CCA prep classes at the college level.
• We’ve seen an expansion on the different types of certifications – this may be diluting the value of the CCA – program may be losing focus on defining the value of the crop advisor. Specialization may not benefit the program.
• Emphasize the importance of analysis on the farm based on the increased amount of data provided by precision agriculture. CCAs provide additional skills for analysis.

Society Input
• Membership assists in staying current. There is access to the latest research.
• Provides another networking opportunity.
• Society has a crucial role in advertising and promoting CCAs.

Summary Input
• Certification allows you to stay current with changes and research. Continue to educate us.
• Awareness – anything we can do to build awareness would be helpful. Targeting those just entering the industry is vital.
• Focus on educating and those entering the industry.
• Make sure the content you provide is current or even ahead of the curve so that we can remain top competitors in the industry.
• Maintain the difficulty of the testing.
• Students, growers, and retailers all need to gain increased awareness of certification and what that is.
• Emphasize the point of on-going education – important for agronomists in today’s market.
2/3/21 – CCA Focus Group 6 p.m.
Number of Participants: 8

Key Trends or Factors that are changing agriculture and the way we farm

- Consumer desire for sustainability and soil health is rapidly increasing.
- Freedom to operate – regulations are accelerating, and it will be a challenge of how we farm.
- Access to technology – quick answers on the Internet – bypasses knowledgeable people and supports non-knowledgeable people that could lead to policy.
- General public putting pressure on everyone to operate in an environmentally sound way.
- Farmer base is more informed. This is more challenging for the agronomist.
- Generational changes – younger generation is beginning to manage the farm with different capabilities.
- Farms are getting larger.
- More precision ag, using some of the latest technologies when we can.

Changes in the Role of the Agronomist

- Farmer has more information, but don’t always know how to put the data together to identify improvements – a little different role for the agronomist.
- As operations continue to grow in size – one focuses on business, one on agronomy and another on equipment. Agronomists need to be more dependent regarding the type of customers.
- We are seeing farmers getting their input from various sources – particularly from independent crop consultants.

Precision Agriculture

- Value has changed but it is still there. Farmers still want “boots on the ground” to confirm data that they trust to a point. They still need explanations.
- It is still a relationship or people business. Farmers still want the agronomist involved in making key and expensive decisions.
- Young farmers don’t value agronomists as much – they trust the technology more.
- Computer savvy younger farmers like to look up information themselves.
- Technology has given agronomists better tools and we are still valued by many farmers.
- As regulatory compliance becomes more important, the experience of a trusted agronomist will become more important.

Initial Certification

- It was once that that certification would be needed to make recommendations across the country. Certification also adds to my knowledge base.
- Working for Pioneer, certification was required.
• Certification was an employment requirement.
• Certification also adds to credentials for legal and testimony work.

Value of Certification
• Farmers do not value certification. Relationship is more important.
• In California, management plans must be reviewed and approved by a Certified Crop Advisor.
• Certification is a “feather in your hat” when job seeking – not a requirement, but a benefit.
• Certification holds more weight with some growers versus others – it’s something to hang your hat on.
• CCA Program keeps agronomists up-to-date and teaches them what they need to know – exam is not that easy.
• If ag retailers are more focused on sales versus agronomy, the certification is less valued. It is based on individual companies.

Why Certification – Students
• The on-going education hours keep agronomists on top of their game and provides opportunity to network with other agronomists.
• Certification helps with credentials, but the ongoing education is the biggest advantage.

Website
• Used to report CEUs and to access courses.
• Remove the duplicate log-in from Society websites.
• Self-reporting is not easy to do. Rated as one of the less user-friendly sites.
• There is confusion concerning self-reporting credits – live webinars versus recorded courses.
• Our Code of Ethics should be respected regarding to self-reporting.

Mechanics of Certification
• Impressed with the professionalism of the process. The feedback loop needs status updates. Also need a digital copy of the application versus hand-written.
• Credential review process is a stumbling block – length of time.
• Students pass the test, but still need the 2-years of experience – therefore, in that time, they cannot state they are certified.

Certification Marketing
• Find a way to create incentives for employers.
• Endorse state government requirements like those found in California.
• California does have a cross-over PCA program with the ongoing education.
• There is no way for a CCA to be insured against liabilities – particularly important in California. This could be a major coverage through an underwriter to support the independent advisors.
• If you are following state guidelines, there is little liability.
• The specialized certifications are only a way for the Society to make more money. These certifications do not add value for anyone.
• Go directly to the processors and promote the importance of the CCA in proper food production.

Society Input
• Not a member – didn’t see the value based on the expense. At one time, there was a perspective of “science over religion” (2000-2002) which was opposed.
• The publications are a benefit. The Society allows you to connect with other professionals.
• If employer didn’t pay for the membership, it would be dropped.

Summary Input
• Website needs to be improved regarding entering CEU credits. Make entire site more user-friendly.
• Comfortable with current situation – local board is active and assists through to the national level.
• Need to make certification more mandatory. Consider the liability insurance.
• Cycles should “reset” once CEUs have been completed versus a calendar schedule.
• Need to improve the quality of CEUs – many times instructors don’t understand the audience – Crop Advisors. Some programs are very elementary or not relative to our business…better quality control.
• Some instructors do know their topic but can’t apply their knowledge to our business.
• Make some of the classes available at no charge, based on certification.
• Push regional territories that there are marketing dollars available.
• Promote at the University level so that students are aware of certification.
• Remind companies and CCAs that they should promote certification at their level.
2/4/21 – CCA Focus Group 8 p.m.
Number of Participants: 8

Key Trends or Factors that are changing agriculture and the way we farm

- Precision agriculture and the enormous amount of data out there for farmers to use.
- Farmers are more like CEOs – running a big business and look for team members to be part of their management team.
- Fewer people with an agriculture background coming into the industry. Universities are not providing the same curriculum – mainly ag economics. We don’t see kids coming from off the farm. Younger people don’t have a depth of understanding of agronomy – including sustainability.
- Age of crop advisors is high – we are going to lose a lot of knowledge in the next 10 years.
- Society expectations – particularly in terms of sustainability. There are things being done to us – regardless of if we want them.
- Agriculture is now global – our domestic industry is affected by agriculture around the globe.

Changes in the Role of Agronomists

- Job hasn’t changed, but now we have a lot more data to review to assist the farmer – very positive.
- We now communicate through technology versus face-to-face.
- Still a relationship business – you still must provide value with your customers.
- There is a generational change in attitude. You need to understand the needs of younger farmers. Younger people are not as loyal to their job or relationships.
- Technology skills are more important today – a wider skillset.
- Agronomists are more specialized – don’t see generalists any longer.

Precision Agriculture

- Precision Ag can be both a friend and foe to the agronomist. It provides better data for the agronomists to make decisions. At the same time, some farmers are making decisions based on the data. New technology isn’t necessarily better technology.
- A Crop Advisor is not equal to an Agronomist. You need to be able to transfer the technology to making something happen on the ground that is beneficial to the grower. Taking Precision Ag to Decision Ag. We are the translators of the pretty maps – what the data actually means. We put the pieces together and tell the whole story.

Value of Certification

- Certification makes a difference to the Crop Advisor – encourages to keep current and provides a more professional image. Not sure if customers value certification.
• Key – the employer must value certification, not necessarily the customer. Self confidence is a major benefit of being certified.
• Customers never ask for certification. Passing the test doesn’t necessarily mean you know agronomy.
• Certification shows that you took the time to learn the principles and apply them. Older CCAs question the value and we may have a challenge of retention.
• Growers have no idea what a CCA is. Awareness is key to increasing the value of CCAs.
• Certification doesn’t equal experience. But it provides the connections and tools to gain the experience. Women are questioned more about their experience and expertise.
• Certification is appreciated by crop advisors – it is an equivalent to a bachelor’s degree in soil science. The exams are meant to be hard and should be compensated for having certification. Management at the highest level needs to value certification.

Marketing Certification
• Crop Advisors need to communicate the value of certification and promote themselves to customers. We don’t sell enough ourselves, particularly the value of the continued education. Until the companies step up and compensate for certification, there is no incentive.
• Companies can raise their professionalism with a staff of CCAs. There is an expense – companies need to see return on that investment.
• MacGregor, in the Northwest, gives advisors two years to gain certification or they are replaced.
• We need to recruit younger CCAs based on the older age of the current CCA population. Possibly we won’t need as many CCAs in the future (forecasting 40 percent decrease in Illinois). Iowa has kept the number of CCAs stable – attrition is only happening at the 10-year experience level.
• Learning opportunities have increased, mainly because of COVID, accessibility is much easier – self-study.
• Illinois is emphasizing the ethics agreement.
• For students – inform them that things are always changing, and agronomy plays an important part in the food, fiber, and energy needs. Agronomists also have the opportunity to enter the environmental industry. You will always have a job and opportunity.
• Companies need to understand the value of CCAs – possibly provide them with some type of incentive to promote certification within their organizations.

Certification Mechanics
• Like the direction of remote testing. CEUs are much more available and many are free.
• Remote testing is working. It’s a stringent program as it should be.
• Remote testing works well with the smaller state organizations.
• CEU recording is much easier today than ever before. Self-reporting is easy.
• You do have to make sure that people are getting the right and different people for the sessions.

**Website**

• Fairly easy website to navigate for basic functions – checking CEUs or checking education opportunities.

• Website doesn’t include details concerning policy or processes. There is a lot of misinformation in the field that could be clarified on the website. The website is too wordy – poor formatting and needs to be refined. The Project Management Association provides an example of a good website as an ideal spot to learn about certification and the organization’s processes and policies.

**Value-added Programming**

• CCAs could oversee sustainable grain certification at the elevator. The CCA Program is perfect to oversee the checks and balances of future sustainability programs.

**Society**

• Membership can be a first step into an agronomy career.
• Networking is a big benefit – connections with other agronomists – both enjoyable and educational.
• Provides an international perspective.

**Summary Input**

• Provide conferences via virtual meetings with good speakers.
• Retail is the largest employer of agronomists and should be a focal point to encourage certification. It provides the assurance of having the basic knowledge to do the job. There is no attempt to bind the organizations for membership.
• Offer states tests for free (as done in Colorado).
• CCAs need to focus on promoting certification themselves – versus relying on the organization to do so.
• Program value is the continued education.
• There is a need to increase the awareness of the value of certification at the farm level. We need to educate CCAs on how to promote themselves and tell the story. Self-promotion could help us. Also need to understand how much attrition is occurring at the 7-to-10 year range.
• We are agronomists, not marketers. We need to understand how we should sell ourselves. We need to understand how to use technology (social media) to promote ourselves. Focus should be building relationships through the awareness of the value of certification to the farmer.
• Pioneer recognizes CCA tenure on social media.