

LESSONS LEARNED REPORT

SOIL HEALTH
EDUCATION PROJECT

MARCH 1, 2022

Business Development Centre

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This report outlines the lessons learned from the Soil Health Education activity throughout the length of the project (September 2019 – February 2022). This document may be used when planning similar projects by outlining what challenges occurred and offering suggestions on how they may be addressed in the future.

Lessons learned were gathered from discussions and meetings with Soil Health Education Working Group members, subject matter experts working on the project, BDC staff members and pilot participants' course evaluations.

Most challenges were around rushing development to meet milestones. This was attributed to multiple factors including expanding scope of content during development, misaligned schedules for subject matter experts, limited team members for development, and balancing roles and responsibilities of project coordinator/instructional designer.

LESSONS LEARNED

Topic	Notes from project	Lessons Learned
Project Management		
COVID-19 impact	<p>Because of COVID-19 pandemic restrictions, opportunities for in-person delivery were limited to outdoor offerings only.</p> <p>Development team meetings had to be held virtually.</p>	<ul style="list-style-type: none"> • Pivoting for unexpected events is difficult to plan for. • Leverage online technology tools. • Determine what subject matter can be delivered in alternate formats. • Virtual formats have the potential to open content to larger audience • Virtual format will not work for all subject matter. • The target audience for this project values in-person experiences to share knowledge among participants.
Impact of content scope revisions on timelines	<p>Phase 1 and Phase 2 course material topics were chosen based on feedback from needs assessment survey.</p> <p>Course outlines were drafted and a timeline established for development. As lesson plans and storyboards were created and development started, revisions to scope of content were made. The revisions to scope impacted timelines and resulted in rushed development to meet milestones.</p>	<ul style="list-style-type: none"> • Develop finalized lesson plans and draft storyboards before establishing milestones • When scope of content is revised, clear communication is needed on impact to timelines. • Revise milestones to accommodate extra time required for revisions. • Re-evaluate timeframe for development and make realistic decision on what can be developed in the timeframe with the available

Topic	Notes from project	Lessons Learned
		resources. It may be worth adjusting the number of course topics to ensure development isn't rushed.
Time commitment for subject matter experts.	Subject matter experts were employed by multiple projects outside of this activity. Scheduling of time was challenging with competing priorities. Development schedule could have been better aligned with other commitments.	<ul style="list-style-type: none"> • Develop an estimated time commitment guide for subject matter experts for future project engagements. This should be used in initial conversations to determine if time commitment can be made. • For subject matter experts that are involved with multiple projects outside of the organization, establish a clear time commitment agreement and schedule that aligns with milestones. • Create a timeline that incorporates contingency to maintain milestone achievements
Team roles	Project coordinator was also the instructional designer. Managing the responsibilities of each role was challenging and created issues with time management. The scope of the project warranted more team members.	<ul style="list-style-type: none"> • Separate roles for project coordinator and instructional designer(s). This allows each team member to focus on the tasks required to meet milestones. • Evaluate scope of development and timelines and determine how many instructional designers will be needed to effectively meet milestones. If resources are unavailable, re-evaluation of project deliverables is needed
Communication to development team	Communication between project coordinator, subject matter experts and working group was challenging and could have been better.	<ul style="list-style-type: none"> • Schedule recurring meetings with development team to update and check progress. This will improve milestone management. • Discuss schedule of commitments outside of project. Ensure timelines are realistic given competing commitments.
Material Development		
Storyboard development	Draft storyboards were created before material development started. Storyboards contained bullet point content and resource references. Instructional designer further developed the content for asynchronous online delivery. More time was spent on translating content for asynchronous	<ul style="list-style-type: none"> • After initial storyboard content is developed, instructional designer and subject matter expert(s) collaborate to develop storyboard that seamlessly translates to asynchronous delivery. • Development in authoring tool begins after finalized storyboard is

Topic	Notes from project	Lessons Learned
	delivery than anticipated which resulted in delays and technical issues in draft material.	complete.
Online material design template	Design template for pilot online material was inconsistent across modules. Adjustments to template were made over the duration of development. Extra time was spent during final revisions to implement a consistent design for all modules.	<ul style="list-style-type: none"> • Invest time to create design template for online modules that will work for subject matter. • Finalized design template streamlines development process
Analysis of online evaluations	Participant responses to pilot evaluations were analyzed and feedback incorporated into revisions and development of subsequent material.	<ul style="list-style-type: none"> • Pilot evaluations are invaluable for material development. Include questions that will provide specific feedback on areas for development. Questions should analyse learning styles, demand for content, scope of content.
Number of review iterations	Material was reviewed by subject matter experts before each pilot. Based on feedback from pilot, revisions were made. A final review from subject matter experts revealed another set of revisions. Timeframe did not allow for a further review or alternate subject matter expert review.	<ul style="list-style-type: none"> • Multiple review iterations are valuable. Budget time for a minimum of three in-depth reviews from subject matter experts (1. pre-pilot, 2. post pilot revisions, 3. Post final review) • Employ alternate subject matter expert(s) for further review
Value of synchronous sessions for online material	Two pilot online courses included synchronous online sessions (i.e., Zoom meeting) with subject matter experts to dive deeper into the topics. Participants indicated that the synchronous sessions were helpful, but not essential for their learning of the material.	<ul style="list-style-type: none"> • Conduct an assessment of the audience to determine value and interest for synchronous online sessions for the subject matter before investing resources to develop. • In the absence of in-person sessions, synchronous online sessions provide learning opportunities amongst participants that can not be replicated in an asynchronous format. Even if not essential to participant learning of material, the knowledge transfer opportunity is valuable.
Project resources		
High quality multi-media	High quality multi-media material was cornerstone to effective learning with this subject matter. Soil health elements are visual and tactile. In an online environment, translating that knowledge required media that directly corresponded to the topic.	<ul style="list-style-type: none"> • Include media selection in initial storyboard development. • Dedicate development time to researching and gathering media that directly links to storyboard. This can require significant time if material doesn't exist or is out-dated.

Topic	Notes from project	Lessons Learned
Collaboration with OMAFRA Soils Team	Collaboration with OMAFRA Soil Team to leverage team knowledge and networks allowed for greater connectivity and access to existing soil health resources.	<ul style="list-style-type: none"> • Establish relationships with networks related to the subject matter to leverage and link existing resources. If quality material is created, connecting the material creates a unified knowledge transfer.
Preferred learning format	<p>Based on needs assessment, target audience indicated combination of online and in-field was preferred learning format for this subject matter.</p> <p>Pilot participant evaluations showed the majority preferred learning about soil health through a combination of online and in-field sessions as well.</p>	<ul style="list-style-type: none"> • For similar projects to this target audience, confirm preferred format in needs assessment. • Virtual formats are a valuable tool. • In the absence of COVID-19 restrictions, offer in-person learning opportunities that expand knowledge gained from online material.
Participants		
Low pilot participant numbers	There was lower than anticipated participant numbers for each pilot session.	<ul style="list-style-type: none"> • Dedicate more resources to targeted marketing to recruit more pilot participants • Budget for research on incentives for participation so marketing aligns with target audience
Recurring pilot participants	In Phase 2, a pool of pilot participants had been established. Having recurring participants provided opportunity to evaluate connectivity of material.	<ul style="list-style-type: none"> • Recurring pilot participants provide feedback that is valuable for program as a whole, not just on the single material. • Confirm interest in future initiatives and develop master list of pilot participants. Seek out references from master list to expand participant pool.

PHASE 2 EVENTS

Course Name	Format	Pilot Event Date	Number of Participants	Overall Satisfaction
2A Soil Management Refresher	Online	January 26, 2021	13	91%
2B Introduction to Soil Health in the Field <ul style="list-style-type: none"> • Prerequisite eLearning modules: <ol style="list-style-type: none"> 1. Soil Biology and Organic Matter 2. Bulk Density and Compaction 3. Soil Degradation Diagnostics 4. Introduction to Soil Health Assessment 5. Soil Health Indicators and Testing 6. Soil Management Refresher 7. Soil Structure and Porosity 8. Soil Materials 9. Soil Moisture 	1 day in-field course with 9 prerequisite online modules	Pilot 1: October 14, 2020 Chatham-Kent Pilot 2: October 6, 2021 Wellington County	8 10	100% 100%
2C: Advanced Soil Biology and Organic Matter	Online	May 16 -30, 2021	11	88%
2D: Soil Health Indicators and Testing	Online	May 16 -30, 2021	11	80%
2E Soil Health: Making it Pay	Online	August 1, 2021	11	100%

RESULTS OF EVALUATIONS

See Appendix

Appendix

Phase 2 Pilot Course Evaluation Results

Soil Management Refresher - [Pilot] 01/26/2021

13 Responses

Summary of Results

Before starting this online course, how would you rate your level of understanding or knowledge of soil management?

64% advanced knowledge of best management practices and/or advise farmers on BMPs

After completing this course, how would you rate your level of understanding or knowledge of best management practices:

55% built-upon my existing knowledge of BMPs

Did you find the 'Systems Approach' was covered well in the course?

- 73 % yes, 27 % yes, but expand
- May need to specify a bit more that it includes everything already being done in the traditional approach.
- The idea of comparing the systems approach to a crop focus approach is maybe not the best wording. A systems approach considers the crop plus other things. The wording suggested a systems approach is lacking crop focus

Do you feel a live session -i.e., a one hour Q & A session or webinar would have increased your learner satisfaction with the course? Note: this would make the course scheduled, and not self-directed.

Yes, but prefer self-directed, learning on own schedule

Overall, how satisfied are you with this course?

91 % satisfied

Do you believe this course provided enough information about best management practices? If no, which practices should be better addressed?

- Majority said yes.
- Suggested revisions: create resources for future use, provide information about the realistic holdups and how to overcome these though.

What did you like most about this course? (please be as specific as possible)

- Case studies and research – real life examples
- Variety of methods for learning (visuals, audio, videos)

What changes could we make to improve this course? (please be as specific as possible)

- Add in a progress bar
- Formatting of slides – more visually appealing

Results

Q1 - Have you participated in an earlier pilot for the Soil Health Education Project?

#	Answer	%	Count
1	Yes (indicate which one)	50.00%	6
2	No	50.00%	6
	Total	100%	12

Yes (indicate which one) - Text

One in fall 2020. Can't remember name

Intro to Soil

Yes, can't remember name but it was Fall 2020

Yes

first one

Soil Health Course- in field

Q2 - How would you best describe your occupation? (select all that apply)

#	Answer	%	Count
1	Farmer/Producer	20.83%	5
2	Certified Crop Advisor	33.33%	8
3	Agri Business Representative	8.33%	2
4	Farm Advisor/Consultant	12.50%	3
5	Agriculture or Farm Organization	12.50%	3
6	Specialist with a Conservation Authority	4.17%	1
7	Government staff/Researcher	0.00%	0
8	Other (specify):	0.00%	0
9	Educator (if so, where?)	8.33%	2
	Total	100%	24

Q4 - Crop Production

#	Answer	%	Count
1	Oilseed and Grain	69.23%	9
2	Other Crop Farming	15.38%	2
3	Not Applicable	15.38%	2
	Total	100%	13

Other Crop Farming - Text

Some vegetable

Q5 - Livestock

#	Answer	%	Count
1	Beef Cattle including feedlots	0.00%	0
2	Dairy Cattle and milk production	0.00%	0
3	Hog and pig farming	0.00%	0
4	Other animal production (specify):	23.08%	3
5	Not Applicable	76.92%	10
	Total	100%	13

Other animal production (specify): - Text

Beekeeping

Bees/Apiculture

Q6 - What region or watershed do you work in (farm, advise, consult, etc)?

What region or watershed do you work in (farm, advise, consult, etc)?

Renfrew (Eastern Ontario)

Essex County, north shore

niagara

Renfrew County

Eastern ON

Otonabee

Kent County

Essex County

Essex

Renfrew/Bonnechere River Watershed

Essex County

Lambton/St. Clair Region

Q7 - Farmland: Indicate farmland associated with your business/organization that you own, rent or lease

#	Answer	%	Count
1	Acres Owned (Crop or Pasture):	25.00%	6
2	Acres Owned (Non-crop or Non-pasture):	25.00%	6
3	Acres Rented/Leased:	25.00%	6
4	N/A	25.00%	6
	Total	100%	24

Acres Owned (Crop or Pasture): - Text

800

52

800

0

400

65

Acres Owned (Non-crop or Non-pasture): - Text

30

2

50

0

100

10

Acres Rented/Leased: - Text

600

1150

600

0

100

195

Q8 - Before starting this online course, how would you rate your level of understanding or knowledge of soil management?

#	Answer	%	Count
4	beginner - learning how to farm/run an operation	0.00%	0
5	knowledgeable - know of, and understand best management practices	18.18%	2
6	advanced knowledge of best management practices and/or advise farmers on BMPs	63.64%	7
7	advanced knowledge - adopt a systems approach to BMPs	18.18%	2
	Total	100%	11

Q9 - After completing this course, how would you rate your level of understanding or knowledge of best management practices:

#	Answer	%	Count
4	improved upon my beginner's knowledge of BMPs	0.00%	0
5	built-upon my existing knowledge of BMPs	54.55%	6
6	broadened my advanced knowledge to better advise my clients	18.18%	2
7	increased my knowledge of BMPs to include a systems approach	27.27%	3
	Total	100%	11

Q10 - Did you find the 'Systems Approach' was covered well in the course?

#	Answer	%	Count
1	Yes - I was able to learn aspects I did not know before	18.18%	2
2	Yes - I was able to clarify information	54.55%	6
3	Yes, but information should be expanded (please explain)	27.27%	3
	Total	100%	11

Yes, but information should be expanded (please explain) - Text

I like the systems approach but have to admit it seemed like it was comparing 'crops based' as if it was 'bad' or 'the old fashioned way' rather than the systems approach being the next level above crop systems thinking (I see it as graduating to the next level than changing direction but I maybe misunderstood)

May need to specify a bit more that it includes everything already being done in the traditional approach, but expands on them

The idea of comparing the systems approach to a crop focus approach is maybe not the best wording. A systems approach considers the crop plus other things. The wording suggested a systems approach is lacking crop focus

Q11 - Please indicate the extent to which you agree or disagree with the following statements:

#	Question	Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree	Total
1	The format was an effective way to learn this information	0.00% 0	18.18% 2	18.18% 2	36.36% 4	27.27% 3	11
2	The material was presented in a clear and logical way	0.00% 0	9.09% 1	36.36% 4	54.55% 6	0.00% 0	11
3	The materials were engaging and held my interest	0.00% 0	0.00% 0	18.18% 2	63.64% 7	18.18% 2	11
4	The resources provided were useful (e.g. videos, links to other resources, BMP books)	0.00% 0	0.00% 0	0.00% 0	54.55% 6	45.45% 5	11
5	Visuals assisted in my learning	0.00% 0	9.09% 1	18.18% 2	54.55% 6	18.18% 2	11
6	Case Studies were Useful	0.00% 0	0.00% 0	9.09% 1	45.45% 5	45.45% 5	11

Q12 - Do you feel the Facebook Soil Health Management Community space added to your learner experience? (select all that apply)

#	Answer	%	Count
1	Yes it was valuable- I joined the Community	45.45%	5
2	Yes it was valuable - I posted/participated in the Community	0.00%	0
3	It would be valuable if it was not in Facebook	9.09%	1
4	Not valuable - I don't need to connect with others to learn	9.09%	1
5	I feel a Community space is better located 'within' a course, rather than on social media	36.36%	4
	Total	100%	11

Q13 - Do you feel a live session -i.e., a one hour Q & A session or webinar would have increased your learner satisfaction with the course? Note: this would make the course scheduled, and not self-directed.

#	Answer	%	Count
1	Yes - I believe it would be a value-add	9.09%	1
2	Yes - but I like the self-directed format	63.64%	7
3	No - I like to learn on my own schedule/convenience	27.27%	3
	Total	100%	11

Q14 - Overall, how satisfied are you with this course?

#	Answer	%	Count
1	Very satisfied	27.27%	3
2	Satisfied	63.64%	7
3	Dissatisfied	9.09%	1
4	Very dissatisfied	0.00%	0
	Total	100%	11

Q15 - When will you apply what you have learned from this course?

#	Answer	%	Count
1	Immediately (within 6 months)	81.82%	9
2	6 months to 1 year	9.09%	1
3	Not sure/Undecided (please explain why)	9.09%	1
	Total	100%	11

Not sure/Undecided (please explain why) - Text

I am unsure of my future in ag

Q16 - What are your preferences for how you would like to learn about soil health topics in the future?

#	Question	1	2	3	4	5	6	7	8	Total
1	In-class (i.e., on campus, in a classroom)	0.00%	0.00%	9.09%	27.27%	18.18%	0.00%	27.27%	18.18%	11
2	eLearning (self-directed)	18.18%	0.00%	9.09%	18.18%	36.36%	9.09%	9.09%	0.00%	11
3	eLearning (with live sessions)	0.00%	18.18%	36.36%	9.09%	9.09%	9.09%	18.18%	0.00%	11
4	Combination of eLearning and On-site	36.36%	27.27%	18.18%	0.00%	9.09%	9.09%	0.00%	0.00%	11
5	Online resources (podcasts, videos, online publications) via an online Community/webpage	9.09%	9.09%	0.00%	18.18%	9.09%	27.27%	18.18%	9.09%	11
6	On-site (occurs at a place of business - i.e., field demonstration/tours)	36.36%	27.27%	9.09%	9.09%	9.09%	0.00%	0.00%	9.09%	11
7	Audio - i.e., podcast	0.00%	0.00%	9.09%	0.00%	0.00%	9.09%	18.18%	63.64%	11
8	Webinars (live or recorded)	0.00%	18.18%	9.09%	18.18%	9.09%	36.36%	9.09%	0.00%	11

Q17 - Do you believe this course provided enough information about best management practices? If no, which practices should be better addressed?

I believe the section on soil physical properties contained all the key elements but could have more in depth examples of how to better manage each of them. At this slide it may be a good

yes

It did a great job of hand-on and concrete examples but I feel that in the goal to have an interactive and fresh looking idea, there were opportunities missed. Eg. Rather than reinforcing the same key messages again and again, the same relevant information was presented a bunch of different ways. It certainly wasn't boring but having just finished the course, I understand the systems approach but would struggle explaining it to someone else.

Yes

Yes

BMPs are good, might be beneficial to include some of the drawbacks or realistic holdups and how to overcome these though.

yes, there are an a lot more BMP's but you can't cover everything

Yes, it was thorough

This course provided a good overview to the BMPs that exist. Some links did not work and some BMPs are not in pdf format which makes it difficult for participants to save resources for future use.

It covered everything sufficiently. I like that it included live examples from Ontario.

Yes

Q19 - What did you like most about this course? (please be as specific as possible)

I liked the diversity of styles in which the information was presented (text, pictures, live audio and video) delivered by a cross of industry professionals and farmers demonstrating success with adopting BMP's,

it's tied: Case studies and research tidbits. Case studies were great to switch up the learning modes, research is always great to see as an additional proof to what may already be noticed anecdotally

Being self-paced, able to work around my schedule, changing up the mediums, and having quizzes kept me engaged. Case studies were good. It was nice to see a commitment to diversity in the farmers and stakeholders represented.

It was interactive and kept my attention

I like that you could do it at your own pace a refer back to it as needed.

Case Studies and Scenarios - showing real world issues and solutions

I like that the slides were different and there was a mix of visual, audio and text. The real life examples with the farmers talking brought a real life feel to it as well.

Some of the videos,

I liked the variety of presenters and resources. I also liked how it wasn't too long and covered a range of topics. It really felt like a refresher course, with the aim to remind the learner of all the different ways to approach soil management.

The wide range of learning styles.

The various media utilized - clicking and listening and dragging - kept me engaged

Q20 - What changes could we make to improve this course? (please be as specific as possible)

Many of the links within would not open for me using Chrome. You might consider showing a bar graph to inform the course participant to track their progress or percent completed as was displayed on the evaluation. Some photos were small and hard to decipher as was stated in the comments. Video of soil erosion over a time lapse would be an eye opener.

Definitely a way to track progress through the course as a way to manage time, and perhaps break up the learning time into manageable segments. The scrollable bar at the left side is great, but doesn't allow for a sense of time required per section. Also, the ability to pause or rewind some videos would be advantageous

Better template of core ideas, consistent messaging in terms of benefits and values (it was kind of all over the place depending on the layout of the slide, seemed a bit more focussed on gimmicks than content at times)

Some guidance on how to use the course a bit more

A lot of effort was made in the setup, but this created some confusion, more content would have been better.

Maybe a bit more focus on the long term aspects of getting there. I.e. how long does it take to improve your soil structure? How many years until we see some major differences? It can vary drastically, yes, but many farmers want to know when they should be seeing some change and to give realistic expectations so they don't get disillusioned.

I think when you establish a slide format look and use it more than once you need keep it consistent with how it operates, I think more and larger pictures would help as well, I am a visual learner and like pictures about what is being discussed

An introduction that shows clearly the information goals and steps going through the course. An indication that shows the progress going through the course for time management. Video and audio with scroll bar to repeat parts - you tube has that. I would be nice to enlarge the presentations to see the charts and graphs being presented,

The slides need improvement. They were not consistent, the font was often too small or hard to read, and the pictures did not enhance or add to the learning. Some of the information icons give additional information about the content while others help you use the slide properly (i.e. watch this video, click on this link). Too much space left for the audio icon. Just have an auto play video that one can pause and move to time stamps. The space could be used for better pictures. Overall the information is great but the format in which it is presented needs work to be more visually appealing.

A few formatting things. Maybe change up some wording for more visual displays.

I really struggled with the Crop Focus vs Systems Approach explanation. I think the material covered was very relevant - it just could be presented better (more visually) in my opinion. A table of all the topics that crop focus vs systems approach would help.

Q21 - Did you find the course design interactions - drag and drop, case studies and/or quizzes enhanced your learner experience?

yes

yes

Yes

Yes

Confusing

Yes, not sure why this is password protected though haha

Yes

yes

I did not like the drag and drop

drag and drop

yes

Q22 - Please provide 3 examples of what you believe should be improved upon.

The audio should be louder, some of the narration was a lower volume than rest of audio, headphones did take care of it but not all participants will use them Perhaps could find a no-till promotion video from Ontario could be used on a future update of the course which would be more applicable to our soil properties (ex topsoil depth) . I realize it's not easy to find materials that meet content, video length and quality) More emphasis on terminating cover crops, planting green or some management tips to address concerns by farmers who have tried cover crops a few times and turned away from a costly experience (ie. lost yield, wet spring couldn't get crop terminated soon enough, etc)

1. Formatting slides in a similar way for continuity (i.e. benefits slides - most were all formatted differently) 2. Audio matching a little closer to wordage on the slide, use audio to enhance what the learner is reading on the slide 3. Video pause/rewind functions

When they worked they were great. When instructions were clear they were great. Should have an option to 'skip' if the person isn't into it. Also would like to be able to bookmark where I left off and return to it later rather than starting at the beginning and having to remember where I left off.

BMP's, cover crop type selector, and applying the info to situations

Not sure what the clocks represented Not all of the interactions were intuitive.

- A bit more clearer navigation on some slides - Some statistics of how soil health is improving for growers using BMPs in Ontario - The steps to creating a customizable systems approach for your own farm

I think soil tillage needs to be explained, several other things had definitions but tillage did not and I think it is a word that can have different meanings. Some slides it was unclear if I was supposed to click on something or not, I found myself clicking on slides I thought would have something and didn't and other I stumbled upon something by clicking. Some slides had several different things to click on but the number only showed up when you clicked on it, I think they should be numbered on the front of the slide

see above

Need more activities with increased interaction. The navigation is a little difficult. Need chapter or section numbers to help locate yourself in the course and see how sections are related. The slides need work to be more visually appealing

Formatting, some improved slides, text coloring

Indented tabs to show what falls under a topic (in the menu) Better visual explanation of crop focus and systems approach. Not sure it's really a THEN Vs NOW. more like an expansion FROM. Because many farmers use Crop Focus - need to be an encouragement to explore and implement systems approach. May come across as "we are enlightened, they are not".

Q23 - How likely are you to refer this course, once it is available, to those in your network(s)?

#	Answer	%	Count
1	Likely	81.82%	9
2	Maybe	18.18%	2
3	Not likely	0.00%	0
	Total	100%	11

Maybe - Text

It is good for someone new in the industry or with little advising experience to become away of ways to look at management.

Q24 - General Comments

Well done overall, best suited for the beginner however.

Thank you! Great work gathering and putting together all of this information in a comprehensive way!

It covered the important points about soil health,

I think overall the course will be beneficial to a lot of people, just some cleaning up of the presentation and it will be good.

I like to have as much interaction in a course as possible. The scenarios were good as well as the case studies. Other sections need more opportunities for checking learning. As I mentioned above, the content is all there, and there are a lot of great resources, however the presentation of it resulted in me missing some of it.

Great work!

Great work putting this together. Thanks for letting me be a part!

Great resources with the vidoes and podcasts, LOVED the Anne Verhalleran part, would love to have her engage in more of these. If the course content, layout and technical issues can be ironed out this has great potential to be excellent. I would even think it could be used at the high school level for engagement into Ag as a career option.

Great overall!

Good job!

A very good job assembling the course contents, it shows much time and effort was contributed to research and assemble the information.

Phase 2B Intro to Soil Health in the Field Evaluation Results – October 14, 2020, Chatham-Kent Location

7 responses

Summary of Results

Prior to taking this course, which area of soil health (listed in the agenda) were you most interested in learning more about?

Soil Health Indicators and Tests

Soil Biology & Organic Matter

eLearning modules

How useful were the prerequisite eLearning lessons?

Mixed results, all thought useful, but varied degree of usefulness.

Was there any eLearning lesson that you felt contained common knowledge? Any you felt were more advanced?

Most comments agreed material was comment for them but a good refresher to build on with topics from the in-field.

Which eLearning lessons did you find the most informative?

Soil Health Indicators and Testing.

In-field instruction

Overall, everyone was satisfied with the in-field instruction.

What opportunities did you see where we could have had you do more hands-on components?

Varied comments; sampling with probe, more time to complete tasks, assessment procedure using relevant guides.

Which of the morning sessions did you feel was the most useful?

Soil Biology and Organic Matter

Was the time frame (one-day) appropriate/enough for the subject-matter covered?

Yes, but slight modifications may be necessary.

Reduce travel time, lunch on site, more time on morning demos.

Please describe which session you learned the most from, and why.

Soil health indicators was mentioned most with the reason being it was new information for them.

1. Thank you for participating in the first pilot of Introduction to Soil Health in the Field. The purpose of the pilot is to gather information on the facilitation, activities, content, structure and the overall experience before the course is launched and opened for registrations. Your responses in this evaluation will be used to improve the course; your feedback matters! How would you best describe your occupation? (select all that apply)

#	Answer	%	Count
1	Certified Crop Advisor	16.67%	2
2	Farmer Producer	16.67%	2
3	Agribusiness Representative	16.67%	2
4	Farm Advisor/Consultant	25.00%	3
5	Specialist with a Conservation Authority	16.67%	2
6	Agriculture or Farm Organization	8.33%	1
7	Government Staff/Researcher	0.00%	0
	Total	100%	12

2. How would you best describe the industry/type of commodity you advise?

#	Answer	%	Count
1	Oilseed and Grain	80.00%	4
2	Other Crop Farming	20.00%	1
3	Beef Cattle (including feedlots)	0.00%	0
4	Dairy Cattle and Milk Production	0.00%	0
5	Hog and Pig Farming	0.00%	0
6	Other Animal Production	0.00%	0
	Total	100%	5

3. What Region or Watershed to you work in?

What Region or Watershed to you work in?

Lower Thames, St Clair

Lower Thames Conservation Authority region mainly, but have clients in Essex / Elgin / Lambton and Chatham-Kent counties

St. Clair Region Conservation Authority watershed

Essex

Chatham Kent - Lower Thames

4. Please indicate the approximate number of acres farmed (please indicate number acres owned and/or rented).

Please indicate the approximate number of acres farmed (please indicate number acres owned and/or rented).

Rent 235 acres

125

0

40

0

5. Please indicate the approximate number of acres upon which you advise.

Please indicate the approximate number of acres upon which you advise.

18,000

100000

N/A

1000

60,000 +/-

6. If you are a CCA, please list number of years as a certified crop advisor.

If you are a CCA, please list number of years as a certified crop advisor.

4 years as CCA

14

21

7. How would you classify yourself as a CCA?

#	Answer	%	Count
1	early-career CCA	33.33%	1
2	mid-career CCA	33.33%	1
3	late-career CCA	33.33%	1
	Total	100%	3

8. Prior to taking this course, which area of soil health (listed in the agenda) were you most interested in learning more about? (select all that apply)

#	Answer	%	Count
1	Soil Health Assessments	18.75%	3
2	Soil Health Indicators and Tests	31.25%	5
3	Soil Description	6.25%	1
4	Soil Degradation	6.25%	1
5	Soil Structure & Density	12.50%	2
6	Soil Biology & Organic Matter	25.00%	4
	Total	100%	16

9. Please rate your overall satisfaction with the course (this includes prerequisite eLearning lessons and in-field course).

#	Answer	%	Count
1	Extremely satisfied	20.00%	1
2	Moderately satisfied	40.00%	2
3	Slightly satisfied	40.00%	2
4	Neither satisfied nor unsatisfied	0.00%	0
5	Slightly unsatisfied	0.00%	0
6	Moderately unsatisfied	0.00%	0
7	Extremely unsatisfied	0.00%	0
	Total	100%	5

10. How easy or difficult was it to navigate the eLearning lessons?

#	Answer	%	Count
1	Extremely easy	20.00%	1
2	Moderately easy	80.00%	4
3	Slightly easy	0.00%	0
4	Neither easy nor difficult	0.00%	0
5	Slightly difficult	0.00%	0
6	Moderately difficult	0.00%	0
7	Extremely difficult	0.00%	0
	Total	100%	5

11. How useful were the prerequisite eLearning lessons?

#	Answer	%	Count
1	Extremely useful	20.00%	1
2	Very useful	40.00%	2
3	Moderately useful	40.00%	2
4	Slightly useful	0.00%	0
5	Not useful at all	0.00%	0
	Total	100%	5

12. Which eLearning lessons did you find the most informative?

Which eLearning lessons did you find the most informative?

Bulk Density & Compaction

Soil Health Indicators and Tests

I don't think i could nail down one specifically.

Soil Health Indicators and tests

soil health and biology discussion

13. Were there any eLearning lesson that you felt contained common-knowledge? Any you felt were more advanced?

Were there any eLearning lesson that you felt contained common-knowledge? Any you felt were more advanced?

Soil Structure & Porosity, common,

all seemed to start with common-knowledge which I feel is a good refresher before building on the topic

I thought it provided a good starting base for me as I am not a CCA and am still learning about soils

There were details in all of the lessons that were new and informative.

mostly everthing was common to myself but more than likely great for others!

14. Please rate your overall satisfaction with the in-field instruction.

#	Answer	%	Count
1	Extremely satisfied	60.00%	3
2	Moderately satisfied	40.00%	2
3	Slightly satisfied	0.00%	0
4	Neither satisfied nor unsatisfied	0.00%	0
5	Slightly unsatisfied	0.00%	0
6	Moderately unsatisfied	0.00%	0
7	Extremely unsatisfied	0.00%	0
	Total	100%	5

15. How well organized/useful were the hands-on components?

#	Answer	%	Count
1	Extremely organized and useful	40.00%	2
2	Very well organized and useful	40.00%	2
3	Moderately well organized and useful	20.00%	1
4	Well organized, but not that useful	0.00%	0
5	Not well organized, but useful.	0.00%	0
	Total	100%	5

16. What opportunities did you see where we could have had you do more hands-on components?

What opportunities did you see where we could have had you do more hands-on components?

Sampling with probe, more digging

none - the activity at the end of the day gave us hands on exposure to everything introduced during the day some of which were not hands on when first presented

Dr. Van Eerd and Anne Verhallen's talks were more philosophical than practical. Interesting to learn what they had to say, but I love hearing both of them talking experience/research with hands-on demos

Once all the components were explained, maybe go through the assessment procedure once with just the relevant guides/tables to follow.

just more time to listen and complete tasks. really need to be a 2 day event.

17. Which session in the morning do you wish we had spent more time on?

Organic Matter, Structure discussion

I think time in each segment was sufficient

Each one? the whole morning felt slightly rushed, then a very long lunch but the entire day was very engaging. I enjoyed putting into practice what we learned in the morning.

They available soil health tests - pros and cons - and how or why not to use them

soil health and biology (maybe get more into classification and different sub species of fungi and bacteria)

18. Which of the morning sessions did you feel was the most useful? (select all that apply)

#	Answer	%	Count
1	Soil Description - soil texture, soil colour features and soil drainage class	21.43%	3
2	Soil Structure & Density	7.14%	1
3	Soil Biology & Organic Matter	28.57%	4
4	Soil Degradation	7.14%	1
5	Soil Health Indicators	21.43%	3
6	Introduction to Soil Health Assessment Card & Case Study	14.29%	2
	Total	100%	14

19. Please describe which session you learned the most from, and why.

Soil Health indicators, new way of looking at things

Soil Health Indicators - this was the newest material for me

As mentioned before - I found the hands-on components more pertinent to me and my learning level. Soil health indicators and organic matter were a little more high level.

Soil Biology and Organic matter and importance to crop growth- but this field is evolving with new information

learned little bits from all, always great to hear refreshers

**20. How do you feel instructors can improve their teaching of this subject-matter?
Please be as specific as possible.**

How do you feel instructors can improve their teaching of this subject-matter? Please be as specific as possible.

More hands on time, more management types, smaller scale, at college plots

give more practical advice/suggestions: for example if you identify problem X these 5 things are suggested Best Management Practices to correct the problem. These BMP's were on the sheets for the activity at the end of the day but not discussed in detail. In my opinion this practical advice is where the value is going back to the farmer and the farmer is ultimately the one who can effect change.

have a bit more time on each session and keep the day to hands-on components.

There was a lot of important material covered in a short time. The e-learning could be expanded into a virtual class, followed by a hands on day.

just have a little bit more time. Unfortantley seemed quite rushed.

21. How effective were the visuals (posters) used in the morning session?

#	Answer	%	Count
1	Extremely effective	0.00%	0
2	Very effective	20.00%	1
3	Moderately effective	60.00%	3
4	Slightly effective	0.00%	0
5	Not effective at all	20.00%	1
	Total	100%	5

22. Please rate your overall satisfaction with the afternoon session (application of Soil Health Assessment).

#	Answer	%	Count
1	Extremely satisfied	80.00%	4
2	Moderately satisfied	20.00%	1
3	Slightly satisfied	0.00%	0
4	Neither good nor bad	0.00%	0
5	Slightly unsatisfied	0.00%	0
6	Moderately unsatisfied	0.00%	0
	Total	100%	5

23. Please rate how likely you are to use the Ready Reference Soil Health Assessment?

#	Answer	%	Count
1	Extremely likely will use often	0.00%	0
2	Likely I will use often	40.00%	2
3	Uncertain.	60.00%	3
4	Unlikely (if so, please explain why)	0.00%	0
	Total	100%	5

24. Were there any aspects of the Soil Health Assessment that were unclear or require further attention to make more useable for CCAs? Please be as specific as possible.

Were there any aspects of the Soil Health Assessment that were unclear or require further attention to make more useable for CCAs? Please be as specific as possible.

hard to capture all the variability or explain it from field to field

Our group learned the most when Ted came around and discussed our findings / pointed out other things we had missed. I think having an instructor go with each group, not lead the group but act as a discussion facilitator during the practical component would be beneficial.

The soil texture component and how it surface compaction affects crop growth. And more so, the subsurface compaction. How to identify and demonstrate to growers, showing the potential effects on yields.

What types of BMP promote conditioning of land/seed bed. Discussions around soil biological species.

25. As a CCA, do you feel the ability to acquire Soil and Water CEU credits made the course more attractive/worthwhile to take?

As a CCA, do you feel the ability to acquire Soil and Water CEU credits made the course more attractive/worthwhile to take?

yes, but good information and a new perspective regardless

I go to courses based on interest in the topic more than for CCA points.

N/A

Not for me.

Unfortantley I am not a CCA

26. Are there any ways you feel the morning session could be improved?

Are there any ways you feel the morning session could be improved?

more hands on if doing in field, go to class room if wanting to illustrate more with charts or pictures

No further suggestions than what I have already stated.

Mentioned previously

The morning session may have been done as a virtual session, allowing the demonstrations and diagrams to be seen up close. And without the distraction of the elements.

over all was great just seemed rushed

27. Are there any ways you feel the afternoon session could be improved?

Are there any ways you feel the afternoon session could be improved?

More time required

No further suggestions than what I have already stated.

No - i enjoyed it

More time for the case studies, and more case studies.

over all was great just seemed rushed (great pick on field for wide range of soil structure and types)

28. Did you find the Soil Health Assessment card limited by only 3 categories (good, fair, poor)? Could this be expanded to 5, for example?

Did you find the Soil Health Assessment card limited by only 3 categories (good, fair, poor)? Could this be expanded to 5, for example?

yes expand to 5

3 is good, moving to 5 muddies the categories and leads to confusion I think

I think 3 keeps things simple and understandable.

More categories may make it more accurate, but also more confusing to learn.

I like simply having 3 choices.

29. Do you feel completing 2 digs would have been enough?

#	Answer	%	Count
1	Yes	60.00%	3
2	No - please explain why we should keep 3.	40.00%	2
	Total	100%	5

No - please explain why we should keep 3. - Text

Once with instruction and then a few times with different properties.

all depends on the field, this was a great location where 2 would probably be fine but 3 is always better. Just seemed rushed unfortantley.

30. Was the time frame (one-day) appropriate/enough for the subject-matter covered?

#	Answer	%	Count
1	Yes - timing and flow of instruction worked well	20.00%	1
2	Yes, but slight modifications may be necessary. Please explain.	60.00%	3
3	No - more time is needed.	20.00%	1
	Total	100%	5

Yes, but slight modifications may be necessary. Please explain. - Text

reduce travel time, lunch on site, covid restrictions likely made tighter,

as mentioned before - a little shorter lunch and more time spent on morning demos

Maybe do it in phases. Soil Health I, Soil Health II, Soil Health III

31. Please indicate the extent to which you agree or disagree with the following statements:

#	Question	Disagree		Agree		Strongly Agree	Total	
1	The in-person education format (morning sessions and in-field application afternoon) was an effective way to learn this information.	0.00%	0	40.00%	2	60.00%	3	5
2	The in-person material was presented by instructors in a clear and logical way.	0.00%	0	60.00%	3	40.00%	2	5
3	The in-person instructional materials (hands-on, visuals, resource binders) were useful.	0.00%	0	60.00%	3	40.00%	2	5
4	The presenters were knowledgeable about the subject matter and content.	0.00%	0	0.00%	0	100.00%	5	5
5	The presenters delivered content in an effective and engaging manner.	0.00%	0	20.00%	1	80.00%	4	5
6	The online resources provided were useful (e.g. videos, links to online resources)	0.00%	0	100.00%	5	0.00%	0	5

32. When will you apply what you have learned from this course?

#	Answer	%	Count
1	Immediately (within 6 months)	80.00%	4
2	6 months to a year	0.00%	0
3	Between 1-2 years	20.00%	1
4	Not sure/Undecided (if so, why?)	0.00%	0
	Total	100%	5

33. What are your preferences for CCA Soil Health training in the future (please check all that apply).

	Answer	%	Count
1	In-class	0.00%	0
2	Webinars	0.00%	0
3	eLearning (online, self-paced)	0.00%	0
4	Online resources (podcasts, videos, online publications)	0.00%	0
5	Peer-to-Peer (learning from each other)	0.00%	0
6	On-Site (occurs at business/in-field)	80.00%	4
7	One-on-One (in-person or over the phone)	0.00%	0
8	This format (online prerequisites and in-field training)	20.00%	1
	Total	100%	5

34. What did you like most about the course (please be as specific as possible)

Witnessing, first hand, impacts of farm management or practices

hands-on component I find much more effective than on-line or in a classroom / one-day format = condensed content but I feel we still covered the material in a logical sequence

Chance to gain some practical knowledge and then apply it in the afternoon; chance to network; the instructors were engaging

The proceeding questions only allows one response. The hands on in the field experience is great..

the hands on in the field experience

35. General Comments

Good program content, will improve with time

no additional comments

Consider having prerequisites. Lots of material to cover and the in field is important could require a whole day on its own.

overall excellent format!! just feel like you really need 2 days to complete and properly teach this information.

Phase 2B Intro to Soil Health in the Field Evaluation Results – October 6, 2021, Wellington County

9 responses

Summary of Results

Prior to taking this course, which area of soil health (listed in the agenda) were you most interested in learning more about?

1. Soil Health Indicators and Tests
2. Soil Degradation

eLearning modules

How useful were the prerequisite eLearning lessons?

Mixed results, all thought useful, but varied degree of usefulness.

Was there any eLearning lesson that you felt contained common knowledge? Any you felt were more advanced?

All comments agreed the content was a good refresher and was needed to make sure all participants had the same base knowledge.

Which eLearning lessons did you find the most informative?

Soil biology and organic matter lesson was mentioned most.

In-field instruction

Overall, everyone was satisfied/very satisfied with the in-field instruction.

What opportunities did you see where we could have had you do more hands-on components?

Majority of comments mentioned more work on soil texture

Which of the morning sessions did you feel was the most useful?

Soil Description - soil texture, soil colour features and soil drainage class

Was the time frame (one-day) appropriate/enough for the subject-matter covered?

Yes, but slight modifications may be necessary.

less walking, integrate the morning & afternoon sessions better, integrate the modules material better.

Please describe which session you learned the most from, and why.

Soil degradation and soil description were top comments. Also, discussions with others were noted as a great learning opportunity.

Thank you for participating in the pilot of Introduction to Soil Health in the Field. The purpose of the pilot is to gather information on the facilitation, activities, content, structure and the overall experience before the course is launched and opened for registrations. Your responses in this evaluation will be used to improve the course; your feedback matters!

1. How would you best describe your occupation? (select all that apply)

#	Answer	%	Count
1	Certified Crop Advisor	41.18%	7
2	Farmer Producer	11.76%	2
3	Agribusiness Representative	11.76%	2
4	Farm Advisor/Consultant	17.65%	3
5	Specialist with a Conservation Authority	11.76%	2
6	Agriculture or Farm Organization	5.88%	1
7	Government Staff/Researcher	0.00%	0
	Total	100%	17

2. How would you best describe the industry/type of commodity you advise?

#	Answer	%	Count
1	Oilseed and Grain	55.56%	5
2	Other Crop Farming	22.22%	2
3	Beef Cattle (including feedlots)	0.00%	0
4	Dairy Cattle and Milk Production	0.00%	0
5	Hog and Pig Farming	0.00%	0
6	Other Animal Production	0.00%	0
7	Does not apply	22.22%	2
	Total	100%	9

3. What Region or Watershed to you work in?

Waterloo-Wellington

Severn Sound

Grand, Halton, Credit

Upper Thames

Maitland

Dufferin, Grey, Simcoe, Wellington, Perth, Huron

SW ON, E ON, Central ON, throughout ON

Grand river

sdf

4. Please indicate the approximate number of acres farmed (please indicate number acres owned and/or rented).

NA

N/A

Not Willing to Disclose

N/A

46

N/A

0

0

asdfasd

5. Please indicate the approximate number of acres upon which you advise.

NA

N/A

Not Willing to Disclose

2000

50,000

it varies and I don't tally them

40000

asdf

6. If you are a CCA, please list number of years as a certified crop advisor.

10

N/A

10

12

1

I have been advising since 2005, certified as a CCA in June 2018

2

asdf

7. How would you classify yourself as a CCA?

#	Answer	%	Count
1	early-career CCA	42.86%	3
2	mid-career CCA	28.57%	2
3	late-career CCA	28.57%	2
	Total	100%	7

8. Prior to taking this course, which area of soil health (listed in the agenda) were you most interested in learning more about? (select all that apply)

#	Answer	%	Count
1	Soil Health Assessments	14.29%	5
2	Soil Health Indicators and Tests	20.00%	7
3	Soil Description	17.14%	6
4	Soil Degradation	20.00%	7
5	Soil Structure & Density	17.14%	6
6	Soil Biology & Organic Matter	11.43%	4
	Total	100%	35

9. Please rate your overall satisfaction with the course (this includes prerequisite eLearning lessons and in-field course).

#	Answer	%	Count
1	Very satisfied	33.33%	3
3	Satisfied	66.67%	6
5	Unsatisfied	0.00%	0
7	Very unsatisfied	0.00%	0
	Total	100%	9

10. How easy or difficult was it to navigate the eLearning lessons?

#	Answer	%	Count
1	Very easy	33.33%	3
3	Easy	44.44%	4
5	Difficult	22.22%	2
7	Very difficult	0.00%	0
	Total	100%	9

11. How useful were the prerequisite eLearning lessons?

#	Answer	%	Count
2	Very useful	33.33%	3
3	Moderately useful	33.33%	3
4	Slightly useful	33.33%	3
5	Not useful at all	0.00%	0
	Total	100%	9

12. Which eLearning lessons did you find the most informative?

1. Soil Health Indicator Tests & In-Field Instrumentation , 2. Diagnostics for Degradation, 7. Soil Management Refresher 8. Soil Health Assessment

soil biology and organic matter

They were to long, need to do many short list (3 items) sessions

Soil Materials and Soil Moisture

Soil Biology & Organic Matter: The Basics

Soil Biology & Organic Matter

Many were review

Soil profile description

13. Were there any eLearning lesson that you felt contained common-knowledge? Any you felt were more advanced?

all modules contained a balance of intro/common knowledge. I think this is needed to make sure equal understanding. The soil biology was probably contained more information than was needed.

no, but the estimated time to complete them was off

NY

I felt like the material in the online learner was a good refresher. I was able to move through the materials I was familiar with quickly, if needed.

each lesson expanded knowledge in some way

Most were fairly common knowledge if you've taken a soil course but not if you haven't

All review is good. Information is structured toward large scale grains and oilseeds and could be improved with inclusion of other scale and types of farming operations

Good level

14. Please rate your overall satisfaction with the in-field instruction.

#	Answer	%	Count
2	Very satisfied	62.50%	5
3	Satisfied	37.50%	3
6	Unsatisfied	0.00%	0
7	Very unsatisfied	0.00%	0
	Total	100%	8

15. How well organized/useful were the hands-on components?

#	Answer	%	Count
2	Very well organized and useful	55.56%	5
3	Moderately well organized and useful	44.44%	4
4	Well organized, but not that useful	0.00%	0
5	Not well organized, but useful.	0.00%	0
	Total	100%	9

16. What opportunities did you see where we could have had you do more hands-on components?

the hand texturing & working through the texturing key, when it came to applying it in the afternoon it seemed to tke alot of time; looking at more soil profiles in field

more soil texture feel tests, some of that seems kind of subjective and it takes a bit of experience I think to really narrow down what type of soil it is

THought it was a great day

none

Was pretty well balanced, learn in the morning, do in the afternoon

going through the keys-texture and drainage with more diversity of soil types

more hand texturing practice - more reference samples

asdfasd

17. Which session in the morning do you wish we had spent more time on?

i think the time spent on each session was adequate

more soil structure examples would help, like I'm not sure if I see platy or blocky structures sometimes

Thought it was a great day

More discussion around what soil health indicators tests (biological and chemical) mean in the context of the different plots.

none

I personally didn't need much more time for the morning sessions

more practice running through a diversity of soil textures and structures

I thought it was good

asfdadf

18. Which of the morning sessions did you feel was the most useful? (select all that apply)

#	Answer	%	Count
1	Soil Description - soil texture, soil colour features and soil drainage class	29.63%	8
2	Soil Structure & Density	14.81%	4
3	Soil Biology & Organic Matter	3.70%	1
4	Soil Degradation	22.22%	6
5	Soil Health Indicators	14.81%	4
6	Introduction to Soil Health Assessment Card & Case Study	14.81%	4
	Total	100%	27

19. Please describe which session you learned the most from, and why.

soil degradation: because it started to pull together aspects of soil description, soil health, production, field history

Soil description, I'm fairly new to this, and reading about soil feel is one thing, it's nice to have someone experienced walk you through the soil texture flow chart

NY

Soil descriptions at the sites. Often BMP options are discussed based on degradation alone and not often discussed in the context of broader soil health issues.

Introduction. Just ahead of lunch when we gathered around few example holes. Very interesting to chat with others and view the soil profile.

Soil health indicators, helps with diagnosis

I found the discussion with the Woodrill staff most interesting to learn what they were learning about soil sampling techniques and data mapping

soil degradation diagnostics

20. How do you feel instructors can improve their teaching of this subject-matter? Please be as specific as possible.

SH assesement card & case study: i found that this could have been outlined/described a bit clearer. maybe walking through an example as a group before breaking the participants up into teams. Perhaps outlining it as: Step 1# do this.....Step#2 do this.....Step#3 do this..... from the handouts in this section, where to start seemed unclear.

If you could provide more examples of different soil textures. I know that can be hard as you're dependent on the area you're working in, but maybe if you sieved the soil ahead of time, and artificially made soil samples, you could give people an idea of what a sandy soil feels like compared to a clay or silty soil

Thought it was great wouldn't change much of anything other than maybe have a smaller booklet instead of a binder

The instructors were engaging and presented the information in a way that was technical but also digestible for the pace at which we went through everything.

Very well done. Information was excellent. May be beneficial to have a wagon or utv for transport to stations efficiently and save some time.

A little scattered/frantic at times but it was the pilot and should improve with practice

The integration of the field findings with the BMP selection could be improved. Discussions tended to be less focused and solutions constrained

increase soil profiles available, maybe have soil cores/profiles laid out with descriptions of where they came from in the field

21. Please rate your overall satisfaction with the afternoon session (application of Soil Health Assessment).

#	Answer	%	Count
2	Very satisfied	37.50%	3
3	Satisfied	37.50%	3
4	Neither good nor bad	25.00%	2
5	Unsatisfied	0.00%	0
	Total	100%	8

22. Please rate how likely you are to use the Ready Reference Soil Health Assessment?

#	Answer	%	Count
1	Extremely likely will use often	22.22%	2
2	Likely I will use often	11.11%	1
3	Uncertain.	66.67%	6
4	Unlikely (if so, please explain why)	0.00%	0
	Total	100%	9

23. Were there any aspects of the Soil Health Assessment that were unclear or require further attention to make more useable for CCAs? Please be as specific as possible.

I really liked that the locations visited in the field had many SH parameters available for discussion/background. However there was a lot of paper & background material in the binder & it was sometimes difficult to find the exactly what reported values were being discussed. The "pulling it all together" at the end of the day is always short changed but it is the most important. Instead of having the morning modules, could they be part of the "how you approach soil health assessment" for example: there would still be 3-4 soil pits (upper, mid, low slope) then at the first pit the participants go the elements covered in the morning modules, mid slope repeat, low slope, repeat. this way the morning instruction modules are part of how to complete a soil health assessment

I'm not a CCA, but it all seemed fairly useful to me

Not that I can see, more practice will make it more valuable.

It's pretty straightforward

The perspective of the Soil Health Assessment tends to be about fixing degradation in parts versus using assessment outcomes to system changes. Example if there are significant areas of the field that are degraded and reduce the capacity to crop in Corn, Soy and Wheat than consider deeper restoration or

regeneration with an alternative system such as perennials or longer cover crop phases. Where is the threshold when a bandage only slows the loss of blood versus removing the knife or the flame?

The paper forms were a little confusing to follow. There were just a lot of sheets of paper to keep track of and the instructions didn't always match the paper

dfgsdfg

24. As a CCA, do you feel the ability to acquire Soil and Water CEU credits made the course more attractive/worthwhile to take?

yes

Again, I'm not a CCA but if this can count towards your continued education then yes I think it makes it more worthwhile

Yes absolutely, there was also alot of value to this course compared to other ones that are created just to offer CEU credits, this course offered a new perspective

N/A

certainly

Nope I've already got all 40

No. I would like to see a greater focus for all CCA's to complete Soil Health Assessments and soil and water conservation planning. The current accreditation is geared toward knowledge and sales of inputs and little attention to stewardship and restoration. Hey we are in a climate and biodiversity loss crisis. The agriculture sector has a huge potential to contribute.

yes, the 5 credits are a big draw

25. Are there any ways you feel the morning session could be improved?

less walking - lost a lot of time

if you could provide a digital copy of the binder that would make it easier to share with our local farm community

NT

Could have used the site locations from the morning as part of the case study, and each group take on one additional afternoon location for the case study exercise to avoid time limits.

transport wagon

Little bit more organized

Slow the demonstration and have a large chart for the keys so that everyone can follow how the assessment was derived. It looked like some less experienced participants had challenges

no

26. Are there any ways you feel the afternoon session could be improved?

each team is accompanied by a facilitator

There were 2 presenters and 3 groups, I thought our group got a little lost and therefore fell behind in the afternoon, having 1 expert there the whole to ask questions would be nice, but logistically I understand that might not be feasible

NT

Discussion around the soil health plan was limited due to time constraints.

reduce the assessment exercise from three holes to two.

More time to complete the assessment

Structure the discussion of the BMP and integrating the information. More attention to facilitating the discussion

make sure to reduce confusion and reduce paper

27. Did you find the Soil Health Assessment card limited by only 3 categories (good, fair, poor)? Could this be expanded to 5, for example?

3 categories is good, easy to conceptualize 3 categories; trying to assess a category between good-fair or fair-poor difficult and doesn't add to the discussion

3 or 5 works fine either way

3 is good

3 is good for in field use. Adding more categories can make it complicated.

3 is suitable

I think 3 is enough when it comes to recommending BMPs

This question is based on one moment in time. The value is in comparing the benchmark of the soil that is not managed to discern if management is trending to improving or degrading. It needs to emphasize the impact of the management decisions with less acceptance of the unintended consequences - erosion, degradation, nutrient loss, etc.

no

28. Do you feel completing 2 digs would have been enough?

#	Answer	%	Count
1	Yes	22.22%	2
2	No - please explain why we should keep 3.	77.78%	7
	Total	100%	9

No - please explain why we should keep 3.

upper-mid-low fills in the story; if a flat topography, maybe 2 would be ok

more examples the better, as long as they show something different

Try and get into 3 drainage classes

see comment above

You learn more from seeing the soil at three different areas of the field, looking at different soil composition in general and get more practice with assessment, can learn more about a specific field

The areas showed us very different results

with 3 you can look at well drained, poorly drained and degraded

29. Was the time frame (one-day) appropriate/enough for the subject-matter covered?

#	Answer	%	Count
1	Yes - timing and flow of instruction worked well	33.33%	3
2	Yes, but slight modifications may be necessary. Please explain.	44.44%	4
3	No - more time is needed.	22.22%	2
	Total	100%	9

Yes, but slight modifications may be necessary. Please explain.

less walking, integrate the morning & afternoon sessions better, integrate the modules material better. there was a lot of time spent on it, just referring back to it during the day would help reinforce the information

NT

9-3 is a suitable target for length

30. Please indicate the extent to which you agree or disagree with the following statements:

#	Question	Disagree		Agree		Strongly Agree		Total
1	The in-person education format (morning sessions and in-field application afternoon) was an effective way to learn this information.	0.00%	0	44.44%	4	55.56%	5	9
2	The in-person material was presented by instructors in a clear and logical way.	11.11%	1	44.44%	4	44.44%	4	9
3	The in-person instructional materials (hands-on, visuals, resource binders) were useful.	11.11%	1	66.67%	6	22.22%	2	9
4	The presenters were knowledgeable about the subject matter and content.	0.00%	0	22.22%	2	77.78%	7	9
5	The presenters delivered content in an effective and engaging manner.	0.00%	0	33.33%	3	66.67%	6	9
6	The online resources provided were useful (e.g. videos, links to online resources)	22.22%	2	66.67%	6	11.11%	1	9

31. When will you apply what you have learned from this course?

#	Answer	%	Count
1	Immediately (within 6 months)	66.67%	6
2	6 months to a year	22.22%	2
3	Between 1-2 years	0.00%	0
4	Not sure/Undecided (if so, why?)	11.11%	1
	Total	100%	9

32. What are your preferences for CCA Soil Health training in the future (please check all that apply).

#	Answer	%	Count
1	In-class	11.11%	1
2	Webinars	0.00%	0
3	eLearning (online, self-paced)	0.00%	0
4	Online resources (podcasts, videos, online publications)	0.00%	0
5	Peer-to-Peer (learning from each other)	11.11%	1
6	On-Site (occurs at business/in-field)	22.22%	2
7	One-on-One (in-person or over the phone)	0.00%	0
8	This format (online prerequisites and in-field training)	55.56%	5
	Total	100%	9

33. What did you like most about the course (please be as specific as possible)

group discussion between participants during the afternoon session

Presenters were really nice and engaging, the binder was full of useful info, but some of it lacked references

On site and practical digging comparing those findings against soil lab "Soil Health" tests that were performed at the site

In-field learning and on-site application of the materials presented.

instructors were enthusiastic, and the actual digging and visual was valuable.

Getting together with other like minded individuals, interested in learning about and preserving/increasing soil health. Hands on digging and assessing for ourselves

in the field, hands on, small groups, open sharing

seeing soil pits and discussing how they relate to crop performance

34. General Comments

General Comments

(1) above question "What are your preferences..." can't check "all that apply". (2) the online modules: need trimming; some embedded videos are just too long; in a few of the modules there is a lack of flow; more consistent format between them would help. (3) field workshop: in field is always good; the morning session repeated much of what was covered in the online modules, which is good, but in order to save time, maybe the in field approach should be to jump right in to the SH assessment & work through what was covered in the morning sessions, building to the final assessment. the end of the day, what did the soil health assessment for the site really look like? i'm not sure we answered that. (4) Well done Adam & Ted. Incredible amount of knowledge between the two of you, thanks for sharing.

Most People (if not everyone) has a smart phone these days, if you could share some of this data on an app or website I think that's the way to go. especially if you can incorporate something like google lens, where you take a photo and it goes through an online database to tell you what your looking at (i.e. identifying species or diseases of plants)

Thank you!

above question did not allow multiple selection

Online modules were not great, the power points looked like the information was given to a third party and just plugged in to a template. Time to complete modules was underestimated, on said it would take 15 minutes but took an hour (some of the attached videos alone were 10 minutes), a lot of the pre requisite modules were repetitive/redundant

Thank you for all the work you have completed and for sharing it with us. More resources are needed to support every landowner to complete a workshop like this. Consider paying farmers to attend these sessions and facilitating discussions and collaborations.

reduce paper, make the independent sessions more clear. Otherwise, well done

Advanced Soil Biology and Organic Matter [Pilot - May 2021]

11 responses

Summary of Results

Do you feel the structure of the course - divided into two parts, with two modules each- helped in your learning of the material?

100% yes, this structure worked well for me

Do you feel the Facebook Community space added to your learner experience?

Majority felt, a Community space is better located 'within' a course, rather than on social media

Do you feel the 'Do it Yourself' prompts assisted in your learning/engagement?

Majority found them useful

How satisfied are you with this eLearning course? Please provide additional information to explain your choice.

88% satisfied

Has your knowledge of soil biology and organic matter improved after taking this course? Please provide additional information to explain.

88% yes

How valuable did you find the Zoom session to be for your learning of the material?

63% helpful, but not essential

What changes can be made to the Zoom session to improve learner experience?

Recording session for easy access, scheduling is difficult, focus on DIY activities and share extra knowledge

General comments:

- More detailed visuals
- This is an advanced course with a longer time commitment (for participants already interested in soil biology)
- Create a “center of excellence” where all current knowledge is assembled

Results

Q2 - Have you participated in an earlier pilot for the Soil Health Education Project?

#	Answer	%	Count
1	Yes (indicate which one)	40.00%	4
2	No	60.00%	6
	Total	100%	10

Yes (indicate which one) - Text

Soil Health Indicators and Testing

Soil health indicators

Ridgetown Fall 2020 In-field soil health seminar

All (I think)

Q3 - As leaders/early adopters in the soil health community, you may have multiple roles and wear multiple 'hats' in agriculture. In reviewing this eLearning course, please select all of the roles or occupations with which you identify.

#	Answer	%	Count
1	Farmer/Producer	12.00%	3
2	Certified Crop Advisor	28.00%	7
3	Agri Business Representative	16.00%	4
4	Farm Advisor/Consultant	16.00%	4
5	Agriculture or Farm Organization	12.00%	3
6	Specialist with a Conservation Authority	0.00%	0
7	Government staff/Researcher	4.00%	1
8	Other (specify):	4.00%	1
9	Educator (if so, where?)	4.00%	1
10	Ontario Soil Network Member/Alumni	4.00%	1
	Total	100%	25

Educator (if so, where?) - Text

Algonquin College

Other (specify): - Text

summer intern

Q4 - How would you best describe your industry type/commodity? (select all that apply)

#	Answer	%	Count
5	Crop Production (oilseed and grain)	71.43%	10
6	Crop Production (other crop farming)	21.43%	3
7	Livestock (beef cattle, including feedlots)	0.00%	0
8	Dairy Cattle and Milk Production	0.00%	0
9	Hog and Pig Farming	0.00%	0
10	Other Animal Production	0.00%	0
11	Apiculture	7.14%	1
	Total	100%	14

Q5 - What region or watershed do you work in (farm, advise, consult, etc)?

What region or watershed do you work in (farm, advise, consult, etc)?

Wellington

Renfrew

Lower Thames

Lower Thames

Lower Thames

Lower Thames

Chatham-Kent, Essex, Lambton, Elgin, Middlesex

Renfrew

Agains the Grain Farm, Winchester ON

Chatham Kent

Q6 - Farmland: Indicate farmland associated with your business/organization that you own, rent or lease

#	Answer	%	Count
1	Acres Owned (Crop or Pasture):	28.57%	4
2	Acres Owned (Non-crop or Non-pasture):	14.29%	2
3	Acres Rented/Leased:	14.29%	2
4	N/A	42.86%	6
	Total	100%	14

Acres Owned (Crop or Pasture): - Text

45

800

240

50

Acres Owned (Non-crop or Non-pasture): - Text

5

50

Acres Rented/Leased: - Text

75

400

Q7 - Before starting this online course, how would you rate your level of understanding or knowledge of soil biology and organic matter?

#	Answer	%	Count
4	beginner	10.00%	1
5	knowledgeable (i.e., some familiarity with soil life/OM basics)	20.00%	2
6	advanced knowledge (i.e., knowledge of soil life/OM BMPs)	40.00%	4
7	advanced knowledge (i.e., adoption/integration of soil life/OM BMPs)	30.00%	3
	Total	100%	10

Q27 - Do you feel the structure of the course - divided into two parts, with two modules each- helped in your learning of the material?

#	Answer	%	Count
1	Yes, this structure worked well for me	100.00%	8
2	No, this did not aid in my learning	0.00%	0
3	N/A	0.00%	0
	Total	100%	8

Q28 - How long did it take you to complete the course (please do not include time taken to review resources under resources tab)

#	Answer	%	Count
1	1-2 hours	0.00%	0
2	2-4 hours	62.50%	5
3	4-6 hours	37.50%	3
	Total	100%	8

Q29 - In your opinion, was the course length - duration - appropriate?

#	Answer	%	Count
1	Yes - I feel the course length was manageable	87.50%	7
2	Somewhat - I think it could be lengthened to expand on particular topics. If so, which topics?	0.00%	0
3	No - I feel it was too long, and not realistic in terms of the time people have available	12.50%	1
	Total	100%	8

Q10 - Please indicate the extent to which you agree or disagree with the following statements:

#	Question	Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree	Total
1	The format was an effective way to learn this information	0.00% 0	0.00% 0	12.50% 1	87.50% 7	0.00% 0	8
2	The material was presented in a clear and logical way	0.00% 0	12.50% 1	25.00% 2	62.50% 5	0.00% 0	8
3	The materials were engaging and held my interest	0.00% 0	0.00% 0	62.50% 5	25.00% 2	12.50% 1	8
4	The resources provided were useful (e.g. videos, links to other resources)	0.00% 0	0.00% 0	0.00% 0	87.50% 7	12.50% 1	8
5	Visuals assisted in my learning	0.00% 0	0.00% 0	37.50% 3	62.50% 5	0.00% 0	8
6	Linked videos/websites/modules assisted in my learning	0.00% 0	0.00% 0	12.50% 1	87.50% 7	0.00% 0	8

**Q11 - Do you feel the Facebook Community space added to your learner experience?
(select all that apply)**

#	Answer	%	Count
1	Yes it was valuable- I joined the Community	25.00%	2
2	Yes it was valuable - I posted/participated in the Community	0.00%	0
3	It would be valuable if it was not in Facebook	12.50%	1
4	Not valuable - I don't need to connect with others to learn	12.50%	1
5	I feel a Community space is better located 'within' a course, rather than on social media	50.00%	4
	Total	100%	8

Q30 - Do you feel the 'Do it Yourself' prompts assisted in your learning/engagement?

#	Answer	%	Count
1	Yes - I found the hands-on DIY activities helpful	50.00%	4
2	No - I didn't find them useful	25.00%	2
3	Yes - I didn't find the time to complete, but consider them useful.	25.00%	2
	Total	100%	8

Q15 - As someone who is engaged and interested in soil health, please rank the delivery modes you would prefer to see in the future (please select all that apply).

#	Question	1	2	3	4	5	6	7	8	Total
1	In-class (i.e., on campus, in a classroom)	12.50%	25.00%	12.50%	0.00%	12.50%	0.00%	0.00%	37.50%	8
2	eLearning (self-directed)	12.50%	12.50%	12.50%	50.00%	12.50%	0.00%	0.00%	0.00%	8
3	Blended eLearning (with live sessions)	25.00%	12.50%	37.50%	0.00%	12.50%	12.50%	0.00%	0.00%	8
4	Combination of eLearning and On-site	37.50%	12.50%	25.00%	25.00%	0.00%	0.00%	0.00%	0.00%	8
5	Online resources (podcasts, videos, online publications) via an online Community/webpage	0.00%	0.00%	0.00%	12.50%	25.00%	25.00%	25.00%	12.50%	8
6	On-site (occurs at a place of business - i.e., field demonstration/tours)	12.50%	37.50%	0.00%	12.50%	25.00%	12.50%	0.00%	0.00%	8
7	Audio - i.e., podcast	0.00%	0.00%	0.00%	0.00%	0.00%	37.50%	37.50%	25.00%	8
8	Webinars (live or recorded)	0.00%	0.00%	12.50%	0.00%	25.00%	12.50%	37.50%	12.50%	8

Q13 - How satisfied are you with this eLearning course? Please provide additional information to explain your choice.

#	Answer	%	Count
1	Very satisfied	25.00%	2
2	Satisfied	62.50%	5
3	Dissatisfied	12.50%	1
	Total	100%	8

Very satisfied - Text

Content was great - unfortunately I couldn't really give it all the attention it deserved because it's such a busy time in cropping

Satisfied - Text

This course was very detailed and I was not expecting the amount of time required to go through all the material.

The material was presented in a logical way and good use of a variety of external resources.

this one was less visually appealing

Dissatisfied - Text

More work needs to be done to improve the user experience of the course. Some information needs to be presented more clearly for participants to grasp the concepts.

Q8 - Has your knowledge of soil biology and organic matter improved after taking this course? Please provide additional information to explain.

#	Answer	%	Count
4	Yes - very much	12.50%	1
6	Yes - somewhat	75.00%	6
8	No - there was nothing new here for me	12.50%	1
	Total	100%	8

Yes - somewhat - Text

I still have yet to go through everything, however I can see that there is a lot for me to learn and that is why it is taking me a long time as I want to digest all the information.

I like how it was organized - it will help me if I'm teaching any sessions locally. Love the visuals!

No - there was nothing new here for me - Text

Good refresher but nothing new.

Q14 - When will you apply what you have learned from this course?

#	Answer	%	Count
1	Immediately (within 6 months)	62.50%	5
2	6 months to 1 year	0.00%	0
3	Not sure/Undecided (please explain why)	37.50%	3
	Total	100%	8

Not sure/Undecided (please explain why) - Text

As I don't directly work with farmers/am not a farmer, I am not sure when I will integrate this into the work I do.

organic matter is a common topic in our discussions with clients

Q22 - How likely are you to refer this course, once it is available, to those in your network(s)?

#	Answer	%	Count
1	Likely	62.50%	5
2	Maybe	37.50%	3
3	Not likely	0.00%	0
	Total	100%	8

Maybe - Text

Depending on the interest of the person. This is not a beginner level course and I teach a lot of people that are at the beginning of their understanding of soil health

will depend on who the target audience ends up being

Q16 - Did you attend the Zoom session?

#	Answer	%	Count
6	Yes	75.00%	6
7	No	12.50%	1
8	Planned to, but was unable	12.50%	1
	Total	100%	8

Q17 - How valuable did you find the Zoom session to be for your learning of the material? Please select all that apply, and explain how.

#	Answer	%	Count
4	Very valuable	25.00%	2
5	Helpful, but not essential for my learning of the material	62.50%	5
6	Valuable, but difficult to attend a scheduled session	12.50%	1
	Total	100%	8

Helpful, but not essential for my learning of the material - Text

The pilot zoom session took on a different purpose than was initially planned. It was valuable as a place for pilot participants to provide feedback on the course, but not to gain more knowledge in addition to the course.

As we ended up discussing course content and how to deliver the course, it did not answer some questions about the actual content of the course.

helpful to understand scope of what is trying to be accomplished with course, it did not have any bearing on my understanding of the material

Q18 - How effective was the facilitator?

Jessica facilitated these sessions very effectively.

Very effective

Facilitating is difficult task - did well with a diverse group

Fine

did not attend the Zoom call

Great and a very good discussion - just didn't really get to do as was intended. Probably should try again and have us re-rate

n/a

effective

Q19 - What changes can be made to the Zoom session to improve learner experience?

Difficult to say because they did not have the intended purpose. Clear advertisement of who the guest speakers are and what topics/specialties they are available to address. Likely it's worth having a bit of "program" instead of just an open discussion time (doesn't need to be long).

Focus on some the DIY activities and have planned discussion to ensure extra knowledge is shared during the zoom session.

No sure, a faster pace keep engagement on going, ask more leading questions to reveal peoples interest

It was fine

did not attend the Zoom call

I would recommend recording it - it's hard finding a time that works for everyone. Evenings are hard for people with small kids, custom spraying, milking, etc

n/a

NA

Q23 - Please share any general or specific comments you have about this course as a whole.

Consider splitting the course into two

This course was very different from what I expected compared to the other pilot courses I have participated in. I am not sure if they all fit together in a series. The others were beginner level and this is much more advanced. I like this course and with my background am very interested in it, however there needs to be explanation that this is more time intensive and is for those already interested in soil health/biology.

A place where all the current knowledge is assembled. This is something ag struggles with a "Center of Excellence" is very important. Keep science at the forefront, resist ideology of soil health. Avoid statements like " We feel there is a soil health issue" . We have one or we don't

Good learning platform for those with little to medium experience with soil conservation and soil health. Need to target a group to "sell" the program to. Too good a content to waste with no users.

Please see my response to Soil Health Indicators pilot. I feel the same format I described on that survey would be useful for this topic as well.

I know podcasts are all the rage right now and they might be valuable but I really think in this situation since the students can't be in person at the soil, the visual is absolutely critical to the learning experience. For this one I would also suggest a 'colour' palette or catalogue of soils of various degrees of health - eg. The clays the loams the sands in healthy examples compared to similar soils with drainage issues or heavy compaction or soil structure. Help people really start to appreciate how soils of their farms can improve (or deteriorate) depending on BMPs

- some of the interactive slides are awkward - overall most of the slides are very cluttered and not visually appealing
- would be nice to have more species identification in the pictures (since this is an advanced course) - also would be nice to have links to scientific papers (even review papers) that go more in depth on the organism interactions with the soil and why that is important

great!

Soil Health Indicators & Testing [Pilot - May 2021]

5 evaluation completions

Summary of Results

Do you feel the structure of the course - self-directed with discussion prompts - helped in your learning of the material?

100% said Yes, this structure worked well for me

In your opinion, was the course length - duration - appropriate?

Yes and somewhat. Wanted more in depth discussion on the tests, was too general.

Do you feel the Facebook Community space added to your learner experience?

Majority thought a "Community spaces" would be better 'within' the course rather than on social media.

How satisfied are you with this eLearning course? Please provide additional information to explain your choice.

Wanting more detail, combine with on-site course

As your knowledge of soil health indicators & testing improved after taking this course? Please provide additional information to explain.

Refresher level, want to hear stories from farmers and CCAs using the tests

What changes can be made to the Zoom session to improve learner experience? Anyone you would have liked to also hear from on this topic?

I think if there was "homework" to do before the zoom to ensure engagement, it would be very beneficial. I like the combo of researchers and farmers on the panel. Another great participant would be someone from a lab that offers certain soil health tests.

Tying this in with a case study or even a 'show and tell' of what some of the farmers and CCAs do on their farms with these tests - how they have used them to help with management decisions, what they feel are the limitations to the tests on the farms, etc. It helps provide better context for the learners

Results

Q2 - Have you participated in an earlier pilot for the Soil Health Education Project?

#	Answer	%	Count
1	Yes (indicate which one)	60.00%	3
2	No	40.00%	2
	Total	100%	5

Yes (indicate which one) - Text

Soil Management Refresher Pilot

In-Field Soil Health Testing - Ridgetown 2020

Growing your knowledge of soil health, soil health refresher

Q3 - As leaders/early adopters in the soil health community, you may have multiple roles and wear multiple 'hats' in agriculture. In reviewing this eLearning course, please select all of the roles or occupations with which you identify.

#	Answer	%	Count
1	Farmer/Producer	16.67%	2
2	Certified Crop Advisor	25.00%	3
3	Agri Business Representative	0.00%	0
4	Farm Advisor/Consultant	8.33%	1
5	Agriculture or Farm Organization	8.33%	1
6	Specialist with a Conservation Authority	0.00%	0
7	Government staff/Researcher	8.33%	1
8	Other (specify):	16.67%	2
9	Educator (if so, where?)	8.33%	1
10	Ontario Soil Network Member/Alumni	8.33%	1
	Total	100%	12

Educator (if so, where?) - Text

Algonquin College

Other (specify): - Text

Research Knowledge Mobilization Specialist

farm intern

Q4 - How would you best describe your industry type/commodity? (select all that apply)

#	Answer	%	Count
5	Crop Production (oilseed and grain)	71.43%	5
6	Crop Production (other crop farming)	14.29%	1
7	Livestock (beef cattle, including feedlots)	0.00%	0
8	Dairy Cattle and Milk Production	0.00%	0
9	Hog and Pig Farming	0.00%	0
10	Other Animal Production	0.00%	0
11	Apiculture	14.29%	1
	Total	100%	7

Q5 - What region or watershed do you work in (farm, advise, consult, etc)?

Renfrew

NA

Chatham-Kent, Essex, Lambton, Elgin

Against the Grain, Winchester ON,

Eastern Ontario (Renfrew County)

Q6 - Farmland: Indicate farmland associated with your business/organization that you own, rent or lease

#	Answer	%	Count
1	Acres Owned (Crop or Pasture):	33.33%	3
2	Acres Owned (Non-crop or Non-pasture):	22.22%	2
3	Acres Rented/Leased:	22.22%	2
4	N/A	22.22%	2
	Total	100%	9

Acres Owned (Crop or Pasture): - Text

45

240

800

Acres Owned (Non-crop or Non-pasture): - Text

5

50

Acres Rented/Leased: - Text

75

600

Q7 - Before starting this online course, how would you rate your level of understanding or knowledge of soil health indicators and testing?

#	Answer	%	Count
4	beginner (example: some familiarity with fertility testing)	20.00%	1
5	knowledgeable (example: some familiarity with multiple tests and indicators)	40.00%	2
6	advanced knowledge (example: extensive familiarity with testing and indicators)	40.00%	2
	Total	100%	5

Q27 - Do you feel the structure of the course - self-directed with discussion prompts - helped in your learning of the material?

#	Answer	%	Count
1	Yes, this structure worked well for me	100.00%	5
2	No, this did not aid in my learning	0.00%	0
3	N/A	0.00%	0
	Total	100%	5

Q28 - How long did it take you to complete the course (please do not include time taken to review resources under resources tab)

#	Answer	%	Count
1	1-2 hours	60.00%	3
2	2-4 hours	40.00%	2
3	4-6 hours	0.00%	0
	Total	100%	5

Q29 - In your opinion, was the course length - duration - appropriate?

#	Answer	%	Count
1	Yes - I feel the course length was manageable	40.00%	2
2	Somewhat - I think it could be lengthened to expand on particular topics. If so, which topics?	60.00%	3
3	No - I feel it was too long, and not realistic in terms of the time people have available	0.00%	0
	Total	100%	5

Somewhat - I think it could be lengthened to expand on particular topics. If so, which topics? - Text

More in depth discussion on how to use the tests and examples of farmers using them

Course length was appropriate, but content depth/detail wasn't enough. Too general for a farmer/CCA audience

It would be interesting to see how these tests are done or at least a better explanation of what is actually being measured - whether the tests are still in their infancy or becoming better understood where the ROI will come from by investing in them

Q10 - Please indicate the extent to which you agree or disagree with the following statements:

#	Question	Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree	Total
1	The format was an effective way to learn this information	0.00% 0	0.00% 0	40.00% 2	60.00% 3	0.00% 0	5
2	The material was presented in a clear and logical way	0.00% 0	20.00% 1	60.00% 3	20.00% 1	0.00% 0	5
3	The materials were engaging and held my interest	0.00% 0	20.00% 1	40.00% 2	40.00% 2	0.00% 0	5
4	The resources provided were useful (e.g. videos, links to other resources)	0.00% 0	0.00% 0	20.00% 1	20.00% 1	60.00% 3	5
5	Visuals assisted in my learning	0.00% 0	20.00% 1	20.00% 1	20.00% 1	40.00% 2	5
6	Linked videos/websites/modules assisted in my learning	0.00% 0	0.00% 0	20.00% 1	40.00% 2	40.00% 2	5

**Q11 - Do you feel the Facebook Community space added to your learner experience?
(select all that apply)**

#	Answer	%	Count
1	Yes it was valuable- I joined the Community	40.00%	2
2	Yes it was valuable - I posted/participated in the Community	0.00%	0
3	It would be valuable if it was not in Facebook	0.00%	0
4	Not valuable - I don't need to connect with others to learn	0.00%	0
5	I feel a Community space is better located 'within' a course, rather than on social media	60.00%	3
	Total	100%	5

Q30 - Do you feel the extensive use of audio in this course assisted in your learning/engagement?

#	Answer	%	Count
1	Yes - audio keeps me engaged	80.00%	4
2	No - I like to read and/or click-through	20.00%	1
3	N/A	0.00%	0
	Total	100%	5

Q15 - As someone who is engaged and interested in soil health, please rank the delivery modes you would prefer to see in the future (please select all that apply).

#	Question	1	2	3	4	5	6	7	8	Total
1	In-class (i.e., on campus, in a classroom)	0.00%	0.00%	20.00%	0.00%	20.00%	0.00%	0.00%	60.00%	5
2	eLearning (self-directed)	0.00%	0.00%	0.00%	40.00%	20.00%	40.00%	0.00%	0.00%	5
3	Blended eLearning (with live sessions)	0.00%	60.00%	0.00%	20.00%	0.00%	20.00%	0.00%	0.00%	5
4	Combination of eLearning and On-site	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	5
5	Online resources (podcasts, videos, online publications) via an online Community/webpage	0.00%	20.00%	20.00%	0.00%	20.00%	20.00%	20.00%	0.00%	5
6	On-site (occurs at a place of business - i.e., field demonstration/tours)	0.00%	20.00%	20.00%	40.00%	0.00%	0.00%	20.00%	0.00%	5
7	Audio - i.e., podcast	0.00%	0.00%	20.00%	0.00%	20.00%	0.00%	40.00%	20.00%	5
8	Webinars (live or recorded)	0.00%	0.00%	20.00%	0.00%	20.00%	20.00%	20.00%	20.00%	5

Q13 - How satisfied are you with this eLearning course? Please provide additional information to explain your choice.

#	Answer	%	Count
1	Very satisfied	0.00%	0
2	Satisfied	80.00%	4
3	Dissatisfied	20.00%	1
	Total	100%	5

Satisfied - Text

This course is a great high level course, but I was hoping to have more detail

would be better to combine eLearning and on-site in my opinion

It was good for the basics and I really liked the resources - audio quality and busy slides did take away from some of the enjoyment

Dissatisfied - Text

Too general. Need to dive into more details in the content. User experience navigating through the course needs improvement. Would be good to have audio narrating the whole thing (maybe even an accessibility requirement?). Need more consistency with pop-ups, resource links, etc. It would be good to organize the menu using headings and sub-headings.

Q8 - As your knowledge of soil health indicators & testing improved after taking this course? Please provide additional information to explain.

#	Answer	%	Count
4	Yes - very much	20.00%	1
6	Yes - somewhat	20.00%	1
8	No - there was nothing new here for me	60.00%	3
	Total	100%	5

Yes - very much - Text

I learned about a bunch of tests that I had never heard of before

Yes - somewhat - Text

It was a good refresher and helped me organize my understanding of the various tests

No - there was nothing new here for me - Text

I wanted to hear stories of farmers and CCAs using the tests and what they showed

Very high level, general

good refresher but no brand new information

Q14 - When will you apply what you have learned from this course?

#	Answer	%	Count
1	Immediately (within 6 months)	40.00%	2
2	6 months to 1 year	40.00%	2
3	Not sure/Undecided (please explain why)	20.00%	1
	Total	100%	5

Not sure/Undecided (please explain why) - Text

didn't learn anything new

Q22 - How likely are you to refer this course, once it is available, to those in your network(s)?

#	Answer	%	Count
1	Likely	20.00%	1
2	Maybe	80.00%	4
3	Not likely	0.00%	0
	Total	100%	5

Maybe - Text

It is good for someone new in the industry or with little advising experience to become away of ways to look at management. I would also refer to students to parts to introduce them to the concepts.

Depends on the final product quality

depends on who final course target audience is

I love referring people to great resources but it needs to be accessible for busy people and hopefully also affordable

Q16 - Did you attend the Zoom session?

#	Answer	%	Count
6	Yes	100.00%	5
7	No	0.00%	0
8	Planned to, but was unable	0.00%	0
	Total	100%	5

**Q17 - How valuable did you find the Zoom session to be for your learning of the material?
Please select all that apply, and explain how.**

#	Answer	%	Count
4	Very valuable	20.00%	1
5	Helpful, but not essential for my learning of the material	60.00%	3
6	Valuable, but difficult to attend a scheduled session	20.00%	1
	Total	100%	5

Very valuable - Text

it was helpful to see what others got from the course and what their main takeaways were

Helpful, but not essential for my learning of the material - Text

As we ended up discussing course content and how to deliver the course, it did not answer some questions about the actual content of the course.

The Zoom sessions took on a slightly different purpose. Valuable space to provide feedback, but didn't necessarily add to my learning. There was a good discussion about what indicators can we recommend. I believe this is a key learning outcome for the course: what are recommended soil health indicators, and how should they be used?

helpful to understand scope of what is trying to be accomplished with course, it did not have any bearing on my understanding of the material

Valuable, but difficult to attend a scheduled session - Text

Good discussion - would be better with a cohort of people you trust otherwise people won't be as likely to engage

Q18 - How effective were the facilitators? How effective was the panel format of this session?

The facilitators were helpful, but we got off topic during zoom and so it is hard to judge what this would be like for future participants.

Facilitators were good. Panel discussion wasn't what was intended. But the panelists were knowledgeable and it would be good to have experts such as these available for a session like this.

panel format was good to get opinions from a variety of stakeholders

very good facilitation, the panel members were great because they were very willing to share their experiences

I think we spent more time talking about the course than the intended panel. I think the panel would have been effective as a wrap up to the course but the discussion that was done what also valuable. Might be good to have 2 Zoom calls for piloting the course - one for giving feedback on the course, followed by a 'run through' of the panel - people are just bursting to share and give feedback so why not just plan for it?

Q19 - What changes can be made to the Zoom session to improve learner experience? Anyone you would have liked to also hear from on this topic?

I think if there was "homework" to do before the zoom to ensure engagement, it would be very beneficial. I like the combo of researchers and farmers on the panel. Another great participant would be someone from a lab that offers certain soil health tests.

Didn't get to experience these sessions as they were intended, so it's difficult to say.

unsure, will depend on final target audience for course who else should be involved in the discussion

just a technical tip, it is helpful for facilitators and speakers in a panel to note that in their "name/title" on zoom so that it is easy to see who is on the panel and who is supposed to be facilitating

Tying this in with a case study or even a 'show and tell' of what some of the farmers and CCAs do on their farms with these tests - how they have used them to help with management decisions, what they feel are the limitations to the tests on the farms, etc. It helps provide better context for the learners

Q23 - Please share any general or specific comments you have about this course as a whole.

Overall I like the concept, but I think it needs more case studies and examples of these tests being used in the real world. Additionally, more discussion around choosing the appropriate test and how to track that over time would be extremely beneficial.

Good idea, and a good start, but needs a lot of work before it can be released and promoted. What is the long-term plan for where these are housed? Whose branding do they fall under? The "Soil Health" initiative out of the BDC is relatively new, and there are lots of initiatives underway. Would it be better to house these e-learning modules under another org/initiative? OSCIA, soils at Guelph, or even UofG OpenEd? Need to think of the succession plan for these resources so they don't just last for a few years. Also, who will be responsible for updating? Who will manage and deliver the course?

I have had the opportunity to participate in a Mastermind group this year and the format for that course I feel would work well for this topic. How it works: the Mastermind is one year long and each month is a different topic, with course material / worksheets to do as self-directed learning. Each month there are multiple "expert" speakers on the subject that do 1 hour Zoom sessions. We can attend these live or watch the recording at our convenience. We also have a small 6 person group that meets every week via Zoom to ask each other questions, discuss the monthly topic, and share / learn from each other what has worked / not worked in our own experiences. I am finding this format a very effective learning format for me. The course is hosted on the Kajabi platform which allows easy access to all the materials and also a chat function where we can communicate with all other participants (even those outside of our small group) and also the instructors / experts.

for very beginners to this topic, it may be helpful to include a "starter pack" of a few basic soil tests that they can try out and build up on. Also (and i don't know if this would be legally viable due to copyright and/or advertising reasons) but maybe showing some company's products and their prices in a quick fact sheet would be helpful to do a cost comparison

Regarding audio - I need to absorb information in several formats over several times to really stick - being able to hear the audio and read the captions was the best way for me to learn. One or the other on their own isn't enough

Soil Health: Making it Pay [Pilot – August 2021]

8 Responses

Summary of Results

In your opinion, was the course length - duration - appropriate?

Yes and somewhat. Videos can make the course longer than expected. Expand on financial aspect.

How satisfied are you with this eLearning course? Please provide additional information to explain your choice.

100% Satisfied/Very Satisfied

Great resource, needed more detail

Has your knowledge of 'making it pay' improved after taking this course? Please provide additional information to explain.

86% Yes

Liked summary points and case studies, wanted more detail in the case studies, add information about “where/how to start” with soil health improvements.

Do you feel a pre-scheduled Zoom session with a panel of case study farmers would be helpful in your learning of the material? Please select all that apply and explain how.

Helpful, but not essential.

Farmers learn from farmers, opportunity to get down to the “nitty gritty”.

Do you think additional case studies would be useful for this course? Please explain.

Yes.

Case studies reinforce information, more in-depth information on the economics, case studies from different parts of the province/commodities/etc.

Results

Q2 - Have you participated in an earlier pilot for the Soil Health Education Project?

#	Answer	%	Count
1	Yes (indicate which one)	14.29%	1
2	No	85.71%	6
	Total	100%	7

Yes (indicate which one) - Text

all of them to-date

Q3 - As leaders/early adopters in the soil health community, you may have multiple roles and wear multiple 'hats' in agriculture. In reviewing this eLearning course, please select all of the roles or occupations with which you identify.

#	Answer	%	Count
1	Farmer/Producer	20.00%	2
2	Certified Crop Advisor	10.00%	1
3	Agri Business Representative	0.00%	0
4	Farm Advisor/Consultant	0.00%	0
5	Agriculture or Farm Organization	30.00%	3
6	Specialist with a Conservation Authority	40.00%	4
7	Government staff/Researcher	0.00%	0
8	Other (specify):	0.00%	0
9	Educator (if so, where?)	0.00%	0
10	Ontario Soil Network Member/Alumni	0.00%	0
	Total	100%	10

Q4 - How would you best describe your industry type/commodity? (select all that apply)

#	Answer	%	Count
5	Crop Production (oilseed and grain)	20.00%	2
6	Crop Production (other crop farming)	0.00%	0
7	Livestock (beef cattle, including feedlots)	0.00%	0
8	Dairy Cattle and Milk Production	10.00%	1
9	Hog and Pig Farming	0.00%	0
10	Other Animal Production	10.00%	1
11	Apiculture	10.00%	1
12	Not applicable	50.00%	5
	Total	100%	10

Q5 - What region or watershed do you work in (farm, advise, consult, etc)?

What region or watershed do you work in (farm, advise, consult, etc)?

All of Ontario

Renfrew County

Thanes River Watershed

Severn Sound Watershed

Grand

Huron County

Upper Thames River

Q6 - Farmland: Indicate farmland associated with your business/organization that you own, rent or lease

#	Answer	%	Count
1	Acres Owned (Crop or Pasture):	18.18%	2
2	Acres Owned (Non-crop or Non-pasture):	18.18%	2
3	Acres Rented/Leased:	27.27%	3
4	N/A	36.36%	4
	Total	100%	11

Acres Owned (Crop or Pasture): - Text

800

350

Acres Owned (Non-crop or Non-pasture): - Text

50

50

Acres Rented/Leased: - Text

300

2000

300

Q7 - Before starting this online course, how would you rate your level of understanding or knowledge of this topic?

#	Answer	%	Count
4	beginner	0.00%	0
5	knowledgeable	85.71%	6
6	advanced knowledge	14.29%	1
	Total	100%	7

Q27 - Do you feel the structure of the course - self-directed with discussion prompts - helped in your learning of the material?

#	Answer	%	Count
1	Yes, this structure worked well for me	71.43%	5
2	No, this did not aid in my learning	14.29%	1
3	N/A	14.29%	1
	Total	100%	7

Q28 - How long did it take you to complete the course (please do not include time taken to review resources under resources tab)

#	Answer	%	Count
1	1-2 hours	57.14%	4
2	2-4 hours	42.86%	3
3	4-6 hours	0.00%	0
4	more than 6 hours	0.00%	0
	Total	100%	7

Q29 - In your opinion, was the course length - duration - appropriate?

#	Answer	%	Count
1	Yes - I feel the course length was manageable	71.43%	5
2	Somewhat - I think it could be lengthened to expand on particular topics. If so, which topics?	28.57%	2
3	No - I feel it was too long, and not realistic in terms of the time people have available	0.00%	0
	Total	100%	7

Somewhat - I think it could be lengthened to expand on particular topics. If so, which topics? - Text

the videos and supplementary materials can make this course longer than expected - It may be useful to have the articles and factsheets available as a package for review after the course

I think that the financial aspect could be expanded.

Q10 - Please indicate the extent to which you agree or disagree with the following statements:

#	Question	Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree	Total
1	The format was an effective way to learn this information	0.00% 0	0.00% 0	42.86% 3	57.14% 4	0.00% 0	7
2	The material was presented in a clear and logical way	0.00% 0	0.00% 0	42.86% 3	42.86% 3	14.29% 1	7
3	The materials were engaging and held my interest	0.00% 0	0.00% 0	57.14% 4	28.57% 2	14.29% 1	7
4	The resources provided were useful (e.g. videos, links to other resources)	0.00% 0	0.00% 0	14.29% 1	42.86% 3	42.86% 3	7
5	Visuals assisted in my learning	0.00% 0	14.29% 1	28.57% 2	42.86% 3	14.29% 1	7
6	Linked videos/websites/modules assisted in my learning	0.00% 0	0.00% 0	14.29% 1	57.14% 4	28.57% 2	7

Q30 - Do you feel the extensive use of audio in this course assisted in your learning/engagement?

#	Answer	%	Count
1	Yes - audio keeps me engaged	71.43%	5
2	No - I like to read and/or click-through	28.57%	2
3	N/A	0.00%	0
	Total	100%	7

Q15 - As someone who is engaged and interested in soil health, please rank the delivery modes you would prefer to see in the future (please select all that apply).

#	Question	1	2	3	4	5	6	7	8	Total
1	In-class (i.e., on campus, in a classroom)	0.00%	0.00%	20.00%	20.00%	0.00%	20.00%	20.00%	20.00%	5
2	eLearning (self-directed)	0.00%	0.00%	33.33%	16.67%	33.33%	16.67%	0.00%	0.00%	6
3	Blended eLearning (with live sessions)	0.00%	40.00%	20.00%	0.00%	20.00%	0.00%	20.00%	0.00%	5
4	Combination of eLearning and On-site	33.33%	33.33%	16.67%	16.67%	0.00%	0.00%	0.00%	0.00%	6
5	Online resources (podcasts, videos, online publications) via an online Community/webpage	0.00%	0.00%	16.67%	0.00%	50.00%	33.33%	0.00%	0.00%	6
6	On-site (occurs at a place of business - i.e., field demonstration/tours)	50.00%	16.67%	0.00%	16.67%	0.00%	16.67%	0.00%	0.00%	6
7	Audio - i.e., podcast	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	40.00%	60.00%	5
8	Webinars (live or recorded)	16.67%	16.67%	0.00%	33.33%	0.00%	0.00%	16.67%	16.67%	6

Q13 - How satisfied are you with this eLearning course? Please provide additional information to explain your choice.

#	Answer	%	Count
1	Very satisfied	42.86%	3
2	Satisfied	57.14%	4
3	Dissatisfied	0.00%	0
	Total	100%	7

Very satisfied - Text

Great resources

well structured and well laid out with excellent outtakes of very useful information

Great resource. Videos were very well done and touched on a lot of important topics with great visuals, demonstrations and explanations.

Satisfied - Text

I think this is a good introduction to the materials - it may benefit from some perspective taking and answering the question, "why am I here?"

I like that there were case studies to back up the claims made in previous slides

I felt it needed more detail.

Great overview of soil health for different knowledge-levels, a few hiccups but that is what the review is for

Q8 - Has your knowledge of 'making it pay' improved after taking this course? Please provide additional information to explain.

#	Answer	%	Count
4	Yes - very much	28.57%	2
6	Yes - somewhat	57.14%	4
8	No - there was nothing new here for me	14.29%	1
	Total	100%	7

Yes - very much - Text

I liked the summary points from the researchers

I know healthy soil are generally better, but it helps to see case studies verify these claims

Yes - somewhat - Text

Depending on the audience, it may be useful to add a 'where/how to start' section that describes a typical launching point for farmers starting their soil health improvement adventure

Yes, interesting breakdown of economics between farm and non-farm, could perhaps enhance by stating who benefits (yield increases = farmer, more CO2 capture=society). Always leery of broad yield statements from cover crops, as there are many different factors that can contribute.

No - there was nothing new here for me - Text

I think that the case studies could be more in depth.

Q14 - When will you apply what you have learned from this course?

#	Answer	%	Count
1	Immediately (within 6 months)	57.14%	4
2	6 months to 1 year	14.29%	1
3	Not sure/Undecided (please explain why)	28.57%	2
	Total	100%	7

Not sure/Undecided (please explain why) - Text

not applicable

Not a farmer

Q22 - How likely are you to refer this course, once it is available, to those in your network(s)?

#	Answer	%	Count
1	Likely	71.43%	5
2	Maybe	28.57%	2
3	Not likely	0.00%	0
	Total	100%	7

Maybe - Text

soil health promotion is only a part of my job

Q17 - Do you feel a pre-scheduled Zoom session with a panel of case study farmers would be helpful in your learning of the material? Please select all that apply, and explain how.

#	Answer	%	Count
4	Very valuable	28.57%	2
5	Helpful, but not essential for my learning of the material	57.14%	4
6	Valuable, but difficult to attend a scheduled session	14.29%	1
	Total	100%	7

Very valuable - Text

farmers learn from farmers. the panel may be most beneficial after participants have completed the course.

Especially if you can record the webinar and post it on youtube for later viewing

Helpful, but not essential for my learning of the material - Text

Would be helpful to get down to the "nitty gritty". Almost feels as if this module would be a great intro to mold a live discussion around cover crop economics

Valuable, but difficult to attend a scheduled session - Text

Good discussion - would be better with a cohort of people you trust otherwise people won't be as likely to engage

Q19 - Do you think additional case studies would be useful for this course? Please explain.

I think as much as possible, you may need to try and demonstrate that soil health BMPs or practices can work for everyone - not just for those that have the right conditions, time, money, mindset. Demonstrate that there are multiple entry points for those that would like to explore this further - and ways they can find more information or consult with an expert.

Depending on your audience, it would be nice to have case studies from different parts of the province/commodities/etc to help people feel they have a lot in common with the farmers profiled (if they can do it, maybe I should try)

Yes, real-life examples seem to bring/reinforce the practical side of things

Yes, you posted a link to the following video about soil erosion by water <https://www.youtube.com/watch?v=RVDXUafmjZM> I would like to hear of a case study of farmers doing more BMPs in regards to water management, for both erosion control and storm water management. I've heard of farmers installing constructed wetlands as a BMP but I haven't really seen a case study on one.

Additional case studies would be helpful. More in depth information on the economics would be more useful.

Stefan Zhetner Exeter-area has some interesting details on short/medium term cover crop economics. Might also be interesting to include the various funding programs available, and how they may change the economics of cover crops or species choice

Yes. The more examples you have, covering different farm types, different soils and climates, and different solutions to challenges, the better.

Q23 - Please share any general or specific comments you have about this course as a whole.

good course! well put together. A template for someone to play with or link to the app mentioned might help. I worry a little about the links to the external materials - links change all the time and it is frustrating when course material refers to links that are broken. I look forward to promoting this course

Great job. Would love to have this for 4-H or college courses. Would also be a good fit for employees starting out at a farm or agribusiness

thoroughly enjoyed the pilot, thinking there could be a second stage or phase to this course with more detailed information and further case studies

I do appreciate the audio, but I don't necessarily need someone to read to me what's on the screen, having more pictures/diagrams and the audio explaining them would be better I think. But I do get that some folks who are visually impaired might appreciate the dictation. Some of the branches to pick different slide pathways don't really make sense or add anything, it would be less confusing to just have a linear slideshow. I think having the buttons to bring up extra pictures or dialogue boxes that you have to close before going to the next slide are better for adding additional non-essential information to the presentation. If the information is essential, then it deserves it's own slide. Also the articulate bar at the top of the screen takes up a good chunk of the screen, I guess that's there way of convincing you to sign up

There was some repetition of material. Since the focus was making it pay there needs to more information on the costs and the returns.

Great content and decent format. Sometimes the 'forced engagement' (like slide 1.16) felt a little well.. forced. Although everyone is a different learner, I found I just wanted to have all the info all at once on the slide.

Great video series that was provided throughout the course.