

Synthesis of Outreach Events in the Healthy Lake Huron Watersheds: 2017-2019

A Report to the Ontario Ministry of Agriculture, Food and Rural Affairs to support efforts of the Healthy Lake Huron Initiative and the Canadian Agricultural Partnership for Stewardship Clusters

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Activity 2

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Introduction

Conservation authorities along with the provincial ministries involved in agriculture and natural resources have provided extension services to farmers for decades. These services have helped improve agriculture and conserve the environment and have included technical advice and links to funding programs.

Since 2017, the Healthy Lake Huron Initiative has provided targeted messaging and water quality and soil health project support to key lakeshore watershed communities. The Saugeen Valley Conservation Authority (SVCA), Maitland Valley Conservation Authority (MVCA), Ausable Bayfield Conservation Authority (ABCA), and St. Clair Region Conservation Authority (SCRCA) have supported local delivery; however, other organizations provide outreach in the community.

Agricultural producers and rural landowners tend to seek advice from trusted sources. If the number of trusted sources was increased, and messaging similar or complementary to other sources, it is possible that producers might be more inclined to adopt practices that will improve water quality, and soil health. This concept is called a Stewardship Cluster.

The purpose of this report is to summarize the various outreach events that different organizations have held since January 2017. A catalogue of these events is included (Appendix A), which outlines where the event was held, event messaging, target audiences and the success of the event based on attendance and participant feedback.

Outreach Organizations in the Healthy Lake Huron Watersheds

The organizations that provide outreach on stewardship, water quality and soil health are many and varied in the Healthy Lake Huron watersheds. Organizations range from conservation authorities and environmental advocacy agencies, to agricultural industry and certified crop advisors. A more fulsome discussion of these organizations and their outreach efforts is examined in the report *CAP Cluster Activity 1 Report: Existing Resources* (Van Esbroeck and Van Dieten, 2019).

In general, there is some overlap between the organizations on delivery of outreach programs; however, there are some differences in outreach themes and audiences. Collaboration between these organizations and industries could result in reaching broader audiences with stewardship, water quality and soil health messaging, as well as increase the success of the events.

Event Types in the Healthy Lake Huron Watersheds

While some organization hold similar types of events and meetings each year, other organizations, such as the four conservation authorities who comprise part of the Healthy Lake Huron Group, attempt to hold different types of events to reach out to as many as possible in their watershed communities. The following are types of events that have been used by organizations within the Healthy Lake Huron watersheds since 2017. Although this is not an exhaustive list of event types, it covers the types of events that have been most often used.

Presentations

Most organizations use presentations for outreach in some manner. They are mostly used as part of larger meetings or conferences. Presentations have the potential to speak to a large audience (depending on the venue) and are good at providing an overview of a particular topic. However, one

drawback is that presentations tend not to facilitate discussion amongst listeners, unless in a smaller setting, thus learning tends to be one sided.

Conference/Showcase

Conferences or showcase events tend to give an overview or broad look at a particular topic or theme. They consist of several presentations by “experts” in their field, and may also include a type of tradeshow or showcase of equipment. Conferences are good at reaching a broad audience, but do not focus on sharing experiences or more fulsome discussions of particular topics.

Workshops

Many agencies use workshops to facilitate discussion amongst participants. They tend to allow for more discussion and sharing. They also allow for topics to be examined in more detail. Workshops, however, tend to be smaller to facilitate an easy flow of discussion, so they tend not reach as wide an audience as some events.

Field Demonstrations

Field demonstrations can come in many different forms. Tours for groups or organizations are one such example; however, some include showcasing demonstration sites, or allowing participants to see best management practices on the ground and in action, or even to take a closer look at the equipment used for implementing best management practices (BMPs). Field demonstrations allow participants to get a hands-on feel for the topic being examined.

Peer-to-Peer Learning

Peer-to-peer learning can happen through many different event types. It refers to fact that the speakers, or leaders, at a particular event are part of the peer group to which they are speaking. For example, farmers who present to other farmers would be considered peer-to-peer learning. This type of learning, whether at a workshop, field day or some other event, can be well received as the speaker garners a respect from participants due to their shared experiences.

Measures of Success

Determining the “success” of an event seems to be subjective at best, as different people will have different measures of success. Attendance and participation at a particular event could be a measure of its success. Those events that have higher attendance considering the scope of the event could be said to have been successful. Also, events with high participation from attendees and lively discussing and sharing can also be measures of success.

However, for this evaluation we used a rubric that consists of four adaptive management principles that were identified in *A Lake Huron Framework for Community Action*: including, building awareness and capacity, supporting community involvement, taking action to restore and protect, and measuring success and adapting (Anderson et al., 2007). Not all events will speak to each of these principles; however, those events that cover more of these principles could be said to be more successful in their intent.

We will also look at the themes of the events held in the Healthy Lake Huron watersheds to measure how successful organizations in these watersheds are at covering a variety of topics that are relevant to agricultural stewardship. Similarly, the target audiences for each event can be examined to determine if events are reaching out to a diverse mix of stakeholders.

A final way to examine the success of an event, or series of events, would be to look at behavioural change as a result. To do this, one has to re-contact event participants and determine whether or not

any changes in practice has come about as a direct, or indirect, result of attendance and participation at an event. It is not feasible to look at all 85 events with this method; however, this report will examine several events listed in Appendix A as case studies.

Analysis and Discussion

The catalogue of events within the Healthy Lake Huron Watersheds (Appendix A) is organized to show a breakdown of the event themes and target audiences. This will allow us to find what the emphasis has been in these watersheds over the past three years, and will also allow us to identify and gaps in what is being presented and who organizations have been reaching.

Each event has also been “marked” according principles found in *A Lake Huron Framework for Community Action*: including, building awareness and capacity, supporting community involvement, taking action to restore and protect, and measuring success and adapting (Anderson et al., 2007). This framework will allow us to see which types of events garner more success, and where gaps may occur in what type of outreach is offered to the community and other stakeholders in the Healthy Lake Huron watersheds. To further determine event success, some of the participants have been re-contacted to find out if they have changed their management practices or adopted further BMPs as a result of the messaging.

Event Themes

For the purposes of this study we focused on a total of five different themes including agricultural production, soil health, BMPs, water quality, and economics. While there can be some overlap between these themes, we believed they showed enough distinction to warrant individual categories. This is not an exhaustive list of themes; however, they are the themes that would be most often used for outreach in the Healthy Lake Huron watersheds.

When we total the number of events that touched on each theme, approximately 80 percent of events focused on soil health and/or BMPs. Soil health has certainly been a topic of interest, so it is not surprising that many events made it their focus. Water quality and agricultural production were topics at 44 percent and 66 percent, respectively, of events held since 2017. In contrast, economics with respect to agriculture and stewardship was only the focus of less than 5 percent of events (Table 1).

Table 1: Percentage of events in the Healthy Lake Huron watersheds covering each topic (2017-2019)

| | Agricultural Production | Soil Health | BMPs | Water Quality | Economics |
|-------------------|-------------------------|-------------|------|---------------|-----------|
| Percent of Events | 65.9 | 81.2 | 82.4 | 43.5 | 4.7 |

If we only look at conservation authority events in Appendix A, we can see that most of the Healthy Lake Huron conservation authorities focus well on soil health, BMPs and water quality. Some conservation authorities, who received special funding for outreach activities, have also done well in speaking to agricultural production. However, there have been very few events that showed a focus on economics. This particular topic has been largely overlooked, not because it is not vital, but rather because it is complex and perhaps there is more need to present “real-world” scenarios about the environmental and economic trade offs. Through collaborating with other organizations, we might address this gap in the outreach to our watersheds.

Target Audiences

We recognise that different sectors within the community have differing perspectives on environmental and agricultural issues. In providing outreach events, we try to meet the needs of each audience in attendance, and the information presented is intended to produce specific outcomes. However, we also recognise that there are gaps in the audiences that are being reached with this information. By noting the audiences targeted at each event we can determine which groups might need more opportunities to learn about soil health, BMPs and stewardship, as well as other relevant topics.

From the catalogue of events it is easy to see that farmers have been the target audience for the majority of outreach events held in the past three years. This is reasonable, since farmers are responsible for the majority of the land in the Healthy Lake Huron watersheds. In total, farmers were target audience for over 75 percent of events held.

All other target audiences noted in the catalogue of events were reached by 30 percent or less of events held. This suggests that there should be more opportunity to reach some of the sectors that can have an influence on land management and farming practices in the watershed areas. If messaging between all of these sectors could be complementary, it is likely that we would see more changes on the agricultural landscape. What we call best management practices, would then become the social norms in the agricultural community. Actual percentages of events targeting each audience are in Table 2.

Table 2: Percentage of events in the Healthy Lake Huron watersheds that target each audience (2017-2019).

| | Farmers | Local Public | Ag. Service Providers | Ag. Suppliers | Env. Agencies/ Organizations | Government | Other |
|-------------------|---------|--------------|-----------------------|---------------|------------------------------|------------|-------|
| Percent of Events | 76.5 | 23.5 | 30.6 | 11.8 | 24.7 | 17.6 | 7.1 |

The Lake Huron Framework Principles

As mentioned above, to help further evaluate the success of events in the Healthy Lake Huron watersheds, we chose to use a rubric based on the principles found in the *Lake Huron Framework* (Anderson et. al., 2007). These principles include building awareness and capacity, supporting community involvement, taking action to restore and protect, and measuring success and adapting.

Of the events listed in the catalogue, all of them help to build awareness and capacity, which is reasonable considering that is what outreach events are designed to do. Additionally, many events also support community involvement. Some examples include workshops, conferences and demonstration events for which local farmers or community members are speakers or leading discussions. In general, all organizations' events do well in addressing these two principles.

Taking action, and measuring and adapting seem to be not as easily attained by events across all organizations. Only 13 percent of events supported taking action and 15 percent supported measuring and adapting (Table 3). It is evident that these are principles that all organizations can work towards in their outreach efforts. Some examples of events that did meet these targets are the Huronview Drainage Innovation Field Day (co-hosted by Huron County Soil and Crop Improvement Association and Ausable Bayfield Conservation), as well as a small farm meeting held by a member of the Ontario Soil Network.

Table 3: Percentage of events in the Healthy Lake Huron watersheds that meet the principles found in the *Lake Huron Framework* (Anderson et. al., 2007) (2017-2019).

| | Build Awareness and Capacity | Support Community Involvement | Take Action to Restore and Protect | Measure Success and Adapt |
|-------------------|------------------------------|-------------------------------|------------------------------------|---------------------------|
| Percent of Events | 65.9 | 81.2 | 82.4 | 43.5 |

Case Study 1: Cover Crop Workshops (2016 – 2019)

Since 2016, the ABCA in partnership with MVCA and the Huron County Soil and Crop Improvement Association has held a cover crop workshop targeted to local producers,. Each workshop has focused on the topic of cover crops, with emphasis on different challenges they present. The format of these workshops has typically been presentation style with time for discussion. Typically, producers are asked to make the presentations. During the 2019 meeting, we also held a secondary part to the day on a specific topic (grazing cover crops) in a small group discussion format.

We typically look at event attendance and participation to give us a measure of the success of the event. If we take this approach for this series of workshops, we could say that these events have been “successful.” Attendance at the workshops has been consistently high (between 45-50 participants). A closer look at those registered for each year shows that between half and two thirds of attendees of the second, third and fourth workshops were repeat attendees from a previous year. The remaining attendees were new contacts, or new to the workshop series. This would suggest that many of the participants find the content of the workshop to be of enough value to warrant returning a second time. Additionally, that there are new attendees each year suggests that the workshop content is still relevant and generating interest in the agricultural community.

However, there are other methods to examine the success of an event. Social indicators are one such method when it comes to examining changed behaviours. According to *The Social Indicator Planning and Evaluation System (SIPES) for Nonpoint Source Management: A Handbook for Watershed Projects*, social indicators are measures that describe to capacity, skills, awareness, knowledge, values, beliefs, and behaviours of individuals and groups (Genskow and Prokopy, 2011). For the purposes of this case study, we attempted to evaluate any change in the awareness about participants’ expectations and beliefs about cover crops, any change in perception about using cover crops on their farm operation, and participants’ awareness about the costs and benefits of using cover crops. To conduct this evaluation a survey was emailed to workshop 60 participants, with 14 participants responding.

In the survey, the first two questions attempted to gauge what participants expected when using cover crops, and if those expectations changed due to workshop content. Most survey respondents seemed to have some general knowledge about what cover crops do, and nobody noted any change in their perceptions. However, when asked about whether or not their opinion about using cover crops on their own farms changed, approximately 60 per cent answered positively. Some respondents noted that they were more confident in what they were doing when they listened to others trying similar practices.

While, most survey respondents noted that their thinking about the costs and benefits of using cover crops did not change, almost 25 per cent did note a change. Some believe that the cost increase from planting cover crops is offset by using less tillage. Some are still trying to decide if there is a yield benefit to cover crops or not, but still note that it is “the right thing to do.” Another respondent, who appear to

be in the agricultural supply/service industry noted that he is trying to figure out the best ways to incorporate cover crops into customers' rotations and field.

Finally, when asked if the amount of acreage put into cover crops this year changed from previous years, over 45 per cent of respondents answered that they increased their acreage in cover crops.

Furthermore, more than 65 per cent of those who increased acreage in cover crops said that the change was due to information received during the workshops.

In general, this survey showed us the value that participants have found in the information provided during these cover crop workshops over the past four years. Not only did participants value the information, they valued the format (learning from peers), and some made changes in their thinking and practices as a direct result of information provided in the workshops.

However, we cannot ignore that there was a percentage of respondents who noted that their attitudes, awareness and behaviours on their farm properties did not change as a result of the workshop. This could be for several reasons. It is possible that they are already using cover crops effectively, or perhaps they are determining how to work cover crops into their operation. A lack of change in behaviour does not necessarily mean an event was not successful. The results of the cover crop workshop survey can be found in Appendix B.

Case Study 2: Soil Health Conference 2018

In February of 2018, St. Clair Region Conservation held a Soil Health Conference in partnership with Lower Thames Valley Conservation in Chatham ON. A number of different speakers joined the day, including representatives from several agricultural businesses, consulting companies and the Ontario Ministry of Agriculture, Food and Rural Affairs, and was attended by 185 farmers and agricultural community members. Topics included BMPs in hydric soils, the economics of soil erosion, soil fungus, local initiatives and soil testing.

An evaluation was provided to attendees, 80 of which were completed and entered into SurveyMonkey (Appendix C). The majority of the evaluation focused farmers' current practices and the barriers to implementing BMPs. However, two of the questions asked about the value of the event content, and both had positive responses. The first of these questions asked if the content demonstrated the value of agricultural BMPs and 97 percent of respondents answered in the affirmative. The second question asked if the information provided was useful and increased their knowledge of the topics, and 100 percent agreed that it was useful.

The final part of the evaluation gave participants an opportunity to provide feedback on the event. Of participants who responded, most had very positive reactions to the event and the content of the event. However, two comments provide further insight. One participant noted that if farmers don't begin thinking on a broader scale, then they will not change their existing "bad" practices. This suggests that, while farmers are getting good information on good management practices, they are not making the connection between their farm and the broader landscape. This suggests that even though most of the events are providing good information, topics need to be broadened to make sure that individuals can see where they fit into the whole system.

Additionally, a second comment noted that the conference did not demonstrate the value of BMPs in a non-farmer consultant context. It would appear that while most organizations do well at speaking to farmers, there may be a lack in outreach to the agricultural service industry.

Case Study 3: The Grey-Bruce Soil and Water Stewardship Program

A third event with an evaluation component is was the Grey-Bruce Soil and Water Stewardship Program implemented by Stewardship Grey Bruce. This incentive program, run in 2018 and 2019, had 35 participants and required them to attend or host 10 events over the course of the program. This program combined educational sessions, financial incentives and peer to peer learning.

The evaluation of this program examined participants' attitudes about the program itself, as well as any change to farming practices that resulted directly from the program. With respect to the program, all participants stated that they found the program inclusive, accessible, and helpful to individual long-term stewardship goals, and that it increased their knowledge and access to resources. A majority of participants also noted that soil health was becoming a larger part of their social lives as a result of the program. Additionally, the associated incentives provided them with enough funding to take actions on their farms.

Despite the praise for the program itself, less than 45 percent of the participants stated that they were inspired to take on more stewardship activities, had greater awareness of water quality issues and had increased willingness to take action. However, over 80 percent did, practice stewardship on more acres than in the past as a result of the program. The program evaluation summary can be found in Appendix D.

Conclusion

It is evident that organizations throughout the Healthy Lake Huron watersheds cover a wide variety of topics surrounding soil health, BMPs, stewardship, environmental issues and agricultural production, and that these events have had varying degrees of success. Those events that tick all, or most, of the boxes for success appear to be those events that encourage peer-to-peer learning, have demonstration components, or conferences with experts on various topics. Some examples include the Huronview Drainage Innovation Field Day held by the Huron County Soil and Crop Improvement Association and the ABCA, farmer-led discussion/field events, or stewardship programs like the one developed in Grey Bruce (Case Study 3). The case study events all recorded some degree of behavioural/farm management change as a result of the events.

However, this study has also identified some substantial gaps in information available to the community as well as target audiences. In particular, there has been very little information available regarding the economics of implementing BMPs on agricultural properties. Additionally, there are a lot of events aimed at a farmer-based audience, which is reasonable considering it is the farmers who determine what happens on their land. However, agricultural service providers and suppliers can have influence on farmers and their decision-making process, and there have been very few events that promote the benefits of BMPs, soil health and stewardship to these groups. Providing good information and collaborating with these types of groups may open up other avenues of promoting BMPs and stewardship that have not traditionally been available to traditional conservation organizations.

References

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