

ENHANCING GROWER ADOPTION OF SOIL BEST MANAGEMENT PRACTICES THROUGH TARGET AUDIENCE SEGMENTS

March 1, 2018



Summary of Findings

Six themes emerged from the qualitative information gathered from farmers and Crop Advisors across Ontario:

1. Financial skill set of farmers (3 elements)
2. Agronomic focus – measurement of success
3. Willingness or ability to invest in equipment
4. Information seeking – availability of local information
5. Influence of retailer/agronomist – trusted source
6. Competition for and managing rental land

Purpose of the Project

Background

- OMAFRA would like to better understand the most effective and efficient way to enhance the adoption of soil best management practices (BMP's) among farmers in Ontario
- To do that, we needed to learn more about those farmers who are currently not adopting soil BMP's on their farm
 - We also took the opportunity to seek the input from farmers who seem very involved in adopting soil BMP's
- For this project, we defined a farmer who is applying a few soil BMP's but could be doing more as a “reluctant adopter” and conversely, a farmer who is involved in a considerable amount of soil BMP's an “enthusiastic adopter”
- Crop Advisors were also part of this research, as they provide a unique and informative perspective on farm customers they serve and in particular, reluctant adopter and enthusiastic adopter farmers

Purpose

- With a deeper knowledge of the identified farmer segments “reluctant adopter” and “enthusiastic adopter”, OMAFRA will be able adjust and prioritize their communication efforts and program design elements to better meet the needs of farmers not yet adopting soil best management practices

Project Objectives

Objectives

The following research objectives for farmers were addressed in this study:

1. Examine farmers behaviour and attitudes in relation to their identified segment of reluctant or enthusiastic adopter
2. Better understand farmers current views on soil fertility and erosion control
3. Identify farmers trusted sources of agronomic information
4. Assess farmers willingness to adopting new soil health management practices
5. Evaluate programs for adopting soil best management practices

The following research objective for Crop Advisors was addressed in this study:

1. Determine what Crop Advisors consider to be their role in helping reluctant adopter farmers learn about and adopt soil best management practices

Research Framework

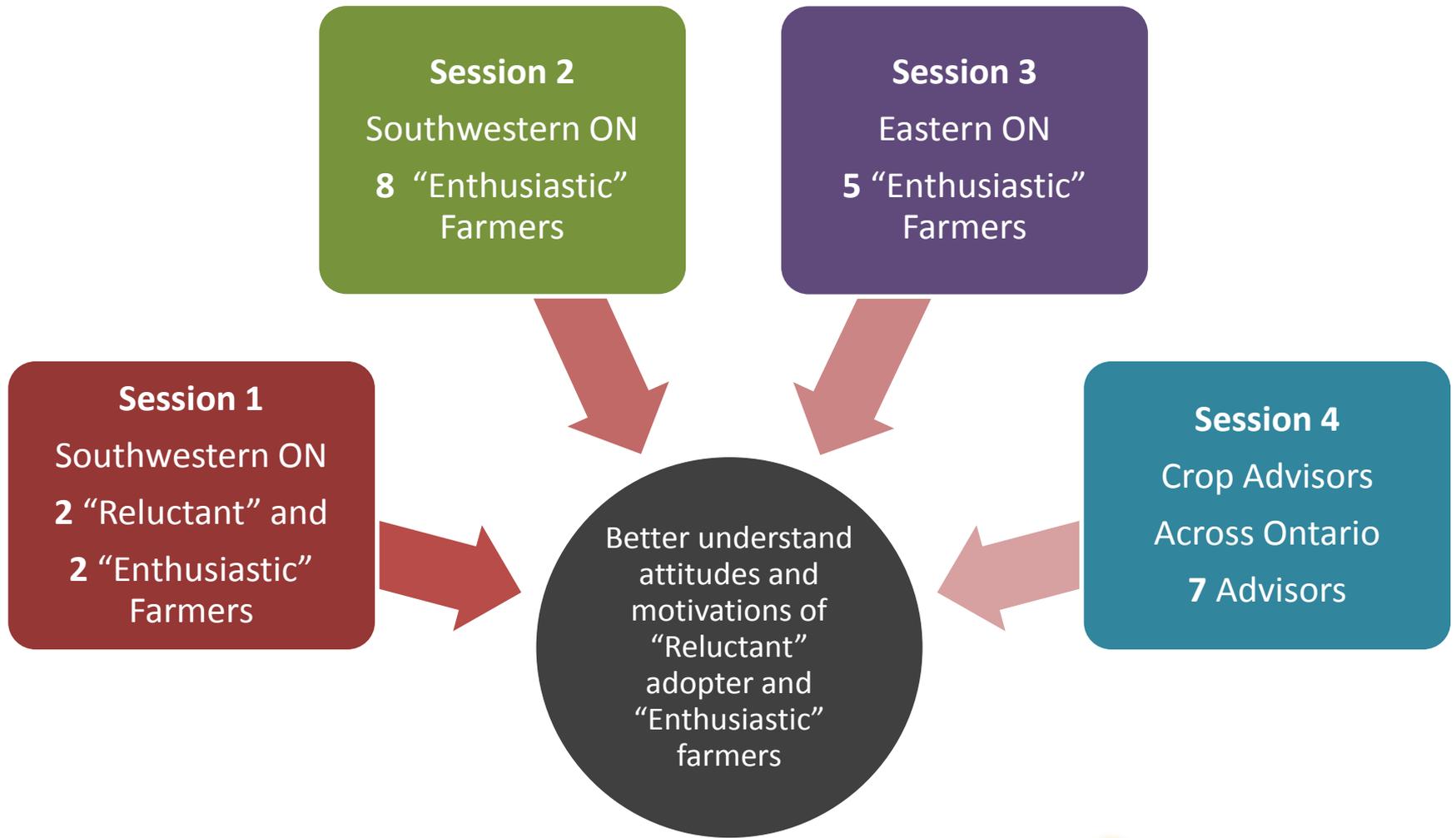
- Tele-focus group sessions were designed to gather in depth information directly from farmers and crop advisors using a teleconference format

| Session | Intended Target Audience | Location |
|----------------|---------------------------------|-----------------------------|
| 1 | Reluctant Adopter Farmers | South West Ontario |
| 2 | Enthusiastic Adopter Farmers | South West Ontario |
| 3 | Reluctant Adopter Group | Central and Eastern Ontario |
| 4 | Crop Advisors | Across Ontario |

Direct Voice of Reluctant Adopters

- The direct “voice” of the reluctant adopter was underrepresented in this research due to several factors
- Reluctant Adopters:
 - Do not easily self-identify
 - Farm part-time / work off farm, so they are harder to reach and contact during the day
 - They often work shifts or travel/truck which makes connecting at set times a challenge
 - Do not attend industry meetings
 - Have little interest in the topic of soil health when contacted
 - Had the highest “no show” rate of any group

Actual Approach



Summary of Findings

Current View on Soil Fertility and Soil Erosion

Benefits

- Farmers who have adopted a few (*reluctant adopters*) or many (*enthusiastic adopters*) of the soil health management practices on their land were able to identify some of the long-term benefits to their soil:
 - retaining soil, less soil compaction, nutrient retention, better moisture capacity, reduced soil erosion, and higher organic matter
 - cost efficiencies alongside of lower input costs
 - increased organic matter and better yields on heavy clay land

Current View on Soil Fertility and Soil Erosion

Challenges

These same farmers also identified challenges to adopting and maintaining soil BMP's:

- cover crops - seeding, growing, and harvesting the “right” cover crop for the main rotational crops
- suitable farm equipment, whether it was access to equipment or access to knowledgeable equipment people
- for soil health management, there is a lack of specific Ontario-based research and up-to-date information for local soil and heat unit areas
- for farmers who are focused on the bottom line, the promise of higher crop yields is not considered a primary reward or motivator
 - as one reluctant adopter stated, “no sense having big yields if it costs too much!”
- quality and availability of rental land is variable as landlords are more focused on rental price versus soil health

Reluctant Adopters Willingness to Embrace Soil BMP's

All of the farmers were asked what is holding reluctant adopters back from considering new soil health practices

- It is the fear of losing yield which keeps reluctant adopter growers “stuck” in bad/old habits
 - “the biggest thing for “lagging farmers” is yield but if you can show ROI regardless of yield, you might just open up some minds”.
- Shifting to adoption of BMP's is slowed by the fear of spending money and not knowing the outcome – some farmers are more concerned with mortgage and loan obligations
- There is a large knowledge gap between reluctant and enthusiastic adopters
 - “reluctant adopter farmers dismiss some of the results of BMP's and say it works there on that kind of ground but NOT on my land”

Reluctant Adopters Willingness to Embrace Soil BMP's

- Attitudes and behaviour among agronomists and retailers are having a significant influence on a reluctant adopter's approach to soil BMP's
 - "A lot of agronomists are focused on yield only and clients get bumper yields therefore it reinforces the thinking that "I'm a good agronomist".
- That attitude about equipment can be a large problem, as many farmers have older tillage equipment and so they continue to use conventional tillage practices
- The power and influence of the landlord when engaged with reluctant adopter farmers
 - "some landlords will not rent to minimum tillage growers as they want their land ploughed, this just reinforces the old cycle"

Programs to Support Change for Soil BMP Adoption

- Farmers in these discussions agree that incentives provided by governments and other groups both motivate and support longer term changes in soil health practices
 - Examples - completion of Environmental Farm Plans and the Farmland Health Check Up
- They also believe that funding for BMP's initiatives could “move the farmer over the edge” to finally start changing their approach to soil health
- Some 3rd party organizations were identified as offering good leadership, education and networking opportunities for farmers
 - “Conservation Authorities are helping to promote soil BMP's across parts of Ontario”

Crop Advisors Perception of Reluctant Adopters

- Most of the advisors concurred that reluctant adopters have an “ingrained” system that works for them when they go to the field
 - “if you want to ask a farmer to change their system, the farmer needs evidence, time to learn about it and support from the advisor or someone they trust”
- They also have reluctant adopter farm customers who do not want to try anything new despite the advisor providing sound advice and recommendations
 - These same farmers also do not want to pay money for agronomic services
- Advisors report that reluctant adopter farmers can be risk adverse
 - “on heavier land a farmer who spends \$15-20 per acre on clover and doesn’t get a harvest – they are very reluctant to try again”

Crop Advisors Perception of Reluctant Adopters

- For a reluctant adopters, a second pair of eyes looking over budgets and general book-keeping helps illuminate the changes (year-over-year) with overall input costs and yield data and this can reinforce behaviour changes for the coming year
- Advisors value being trusted by their customers and in return, value being successful at trouble shooting against any given problem
 - “These successes add more credibility to the relationship, especially when it’s time to begin the harder conversations about soil that is: tight, compacted, low in organic matter or all of these combined”
- Advisors in Ontario agree that most farmers soil health practices change on rental lands where they are more focused on maximizing crop yields and thinking year-by-year versus long term soil improvements

Challenges that Reinforce Conventional Behaviour

- Getting farmers to think about return on the acre/field and not just crop yield is a significant challenge
 - “competitive farmers want to have the highest yield of anyone in their area and yet they may not necessarily be the best farmer”.
- Many farm customers are hesitant to access new information or education and are heavily reliant on the advisor to tell them or show them how a situation can be improved
- Farmers with financial challenges oftentimes perceive that they do not have the available budget to allocate toward soil health practices such as cover crops and new equipment

Role of Associations/Government to shift Behaviour

- Advisors agree that stronger programs pick up performance indicators that shape outcomes such as reduced phosphate runoff and reduced soil erosion
- They support the continued use of the Farmland Health Check Up program
 - “new customers signed up, were willing to talk about their soil conditions, enjoyed comparing their very best fields to their worst fields, a process that resulted in ‘ah-ha’ moments for many”.
- Advisors indicated that they are frustrated by a seeming lack of local and long term research aimed at no-till
 - Advisors scramble to find good data to help open up a farm customer’s mind to soil health practices

Reluctant Adopter Farmer “Themes”

- **Financial skill set**
 - Ability to evaluate cost of production, ROI
 - Debt situation (mortgage & loans)
 - Risk tolerance
- **Agronomic focus**
 - Success metric based on yield
 - Shorter term focus
- **Equipment purchases**
 - Willingness and/or ability to invest in equipment
 - Access to knowledgeable sources

- **Information seeker**
 - Local information important
 - Trusted source available
 - Importance of acquiring knowledge
- **Influence of retailer/agronomist**
 - Part of the decision making process
 - Support soil health initiatives
- **Managing rental land**
 - Balance short term cost with longer term payout
 - Non-supportive landlords