**FarmSmart 2015**

ZoneSMART

While there continues to be a lot of hype and talk about Precision Agriculture adoption and use in Ontario, the truth is we are behind other big agriculture jurisdictions in the states and western Canada where the level of adoption is significant. Farmers in Ontario continue to be concerned about the cost of adaption relative to the benefits that can be achieved through implementation. Additionally, and rightly so, many farmers are apprehensive about the technologies being promoted by the equipment and service industries. The talk of "BIG Data" is intimidating, and rightly so when you see how many data points and types of data can be collected from the plethora of precision ag equipment.

With the apprehension that exists in the countryside about precision ag, the FarmSmart team with some additional partners decided to create a full day field event to highlight what all the hype is about. We wanted to create an environment where people could come and explore the different options that exist across the range of technologies that are available to help create and develop a management zone map of fields using available equipment. We wanted to introduce people to these various technologies in a hands on demonstration layout to help people get familiar with and understand how equipment and information integrate to develop solutions to ongoing gaps in knowledge about our fields and their productive potential and environmental impact. In the old days dad and grandpa knew the 100 acres of fields they farmed inside and out. They new the wet spots, or the knolls, or that small area of clay in the back 40. Today, with farmers operating on hundred's if not thousands of acres, we have lost that intimate knowledge of our landscpape and how best to manage it. That is one of the opportunities that site specific management within the umbrella of precision agriculture offers us.

Using GPS technology we can know have our equipment know exactly where it is in the landscape at each moment in time. In knowing this, the ability to instruct the equipment to deliver prescribed amounts of crop inputs to each small unit of landscape to optimize input efficiency and reduce environmental impact is upon us.

There are a number of component options that we need to get there. We have to understand how the variation in a field is distributed and what are the characteristics of these areas of variation. Once we have that we then use our knowledge of agronomy to apply inputs spatially to maximum effect.

ZoneSmart set out to help farmers and their advisors who are interested in precision site specific management the workings of the various pieces of the puzzle and how to integrate them. Figure 1. Highlights the various components that go into the creation of management zone maps. These maps are crucial to the success of site specific management . Not all the layers are required to create high resolution management zones but we want people to understand all their options.
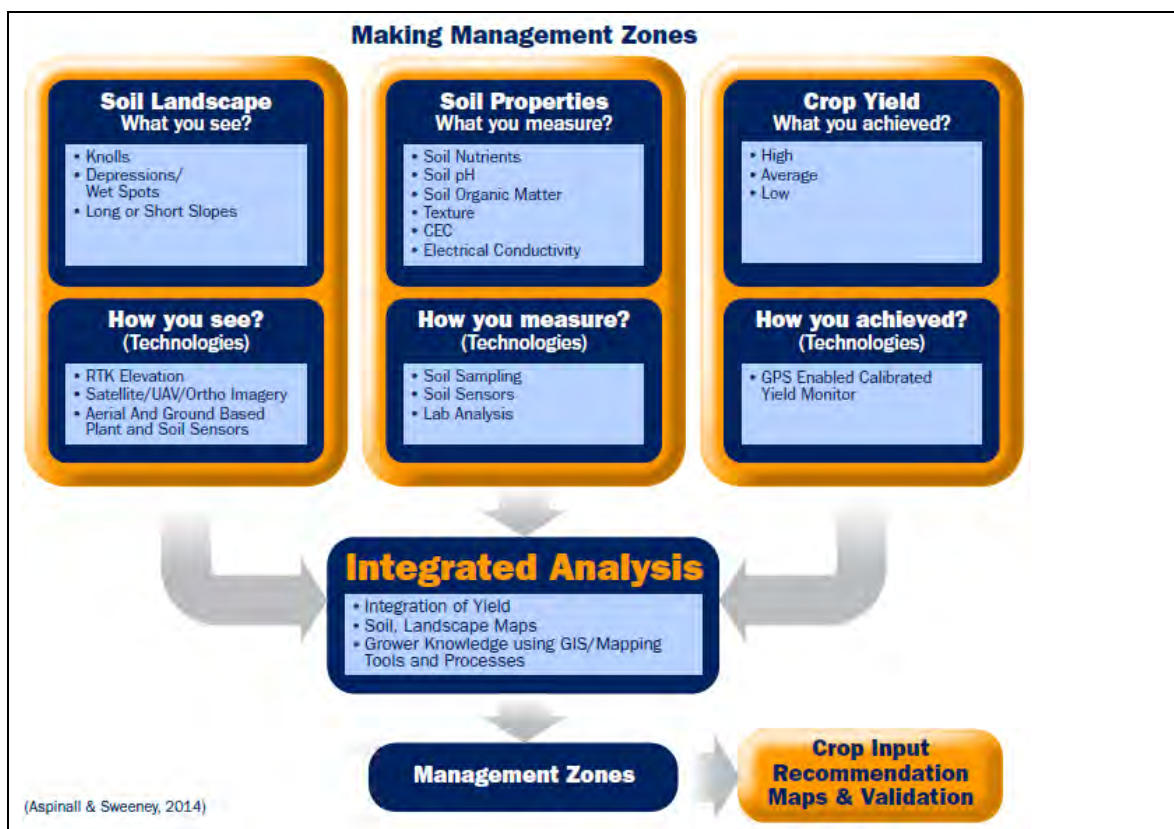
Figure 1. The Various Components that are used to Create Management Zones

Thus ZoneSmart was developed to bring interested people together to explore what it takes to create management zones. We had stations that covered the layers used to ceate management zones including:

1. Yield maps
2. Elevation Maps
3. Soil Maps

Using:

1. Remote and proximal sensing
2. Commercial software's
3. Crop consultants and industry equipment

Through as series of stations and presentations small groups of participants were rotated through the various stations listed above where they got the opportunity to interact with precision ag experts (academic, extension, industry) and practiconers who have been making a success of site specific management and understand the steps necessary to make the opportunities of precision ag achievable. People especially liked the partnering of the theory and practical farmer partnering on each of our stations.

Figure 2. All the Equipment and Resources to Make Site Specific Management Work were in Attendance at ZoneSmart.

Figure 3. Learning about Digital Soils Mapping Derived from Elevation and Soils Data Layers.

Figure 4. Learning Tips and Tricks on How To Manage Precision Ag Data.

Figure 5. Learning from the Extension (Doug Aspinall,OMAFFRA) and Farmer (Dan Breckon, Woodrill Farms) Experts at the Soil Pit.

Figure 6. Checking Out the Variability of Soil from the Soil Pit and Understanding how it Impacts Management Zones and Prescription Allocation.

The committee looks forward to hopefully being able to continue with a ZoneSmart Event in 2016. Stay tuned!

Although our 2015 date has still to be set, keep current with FarmSmart related happenings at our new website at www.farmsmartconference.com

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