

[Ag Matters](#)

Noted soil expert speaks at Farming Smarter conference in medicine hat

by Tim Kalinowski

Nov. 17, 2017

Farming Smarter held its annual Medicine Hat conference at the Stampede grounds Grandstand on Oct. 26. One of the keynote speakers on the day was Dr. Yamily Zavala, a crop and soil nutrient specialist with the Chinook Applied Research Association (CARA). Zavala spent much of her talk on the subject of creating better bio-diversity in the soil. Pointing to research which shows generally poor subsoil conditions in crop lands in Alberta, Zavala said there was much farmers could do to change the situation.

“So how do we have healthier soil?” she asked. “First we have organic matter, then better aggregation, and with all the microbes you can produce a really nice house (for plants) in there.”

Zavala took a great deal of time pointing out why greater aggregation was the key, as long as that aggregation comes from a healthy “cocktail” of plants which all add something to the quality of the underground microbial universe of the soil.

“Aggregation can make the soil more stable,” she said in her lecture. “And when they make it more stable this is what happens: It can better resist water erosion, wind erosion and they can allow better conditions for any crop to grow in there.”



Soil specialist Dr. Yamily Zavala (Top Right Photo) spoke to the Farming Smarter conference in Medicine Hat in late October about better farming practices to help the often forgotten underworld of the soil. Photo by Tim Kalinowski

Zavala ended her lecture with an interesting experiment where she had volunteers come up to the front of the room. She handed out samples of her “greatest loves,” soil samples she has collected in recent years from the best farms in Alberta where she has found good aggregate with rich micro-biology biodiversity contained within. She had the volunteers inject the samples into long canisters of water. The better the clump stayed together as it moved through the water, the richer the soil aggregate quality.

Zavala also answered a question about the long term impacts of the Hilda area wildfires on the soil health of those affected. She painted a grim picture, but held out room for hope for those farmers worried about the fallout.

“It will depend on what we do next,” she said. “It will depend on what program we do there for planting, and it will also depend on the weather. “If we have moisture and a (planting) program there that will allow us to start growing something, if Mother Nature gives us enough moisture to grow, we could start to see recovery. I don’t know how bad the (fire) damage was in the soil, but if were to start growing (beneficial) cocktail mixes (of plants) there, and it depends on what microbial mix is still there in the soil ...

“How deep the burn

went is something that has to be measured to see, but we can probably do something (to aid recovery) depending on Mother Nature.”

Burned out corn stocks in wake of Hilda fire. Not only was property lost in the blaze, in many cases topsoil was badly eroded by the fires’ self-generating tornado-like fury as it moved across the land. Photo by Tim Kalinowski

