

10th Annual Field Day

Thursday, August 29th, 2019



There are aspects in farming and business called Critical Success Factors. These are situations that must be in place or else the crop, farm, or business fails.

Temperature range is an obvious example. No farmer plants a corn crop just before winter begins. Why? Because the critical success factor of acceptable temperature range is not present and will cause a crop failure.

Another less obvious Critical Success Factor is the nutrient Manganese. Manganese was called “The Element of Life” by Dr. Carey Reams.

Manganese is a vital trace mineral that interacts with just about every aspect of growing a crop.

Here are just a few interactions that Manganese directly interacts with:

1. Splitting the water molecule to get hydrogen
2. The availability of Zinc
3. Manganese is a catalyst of enzymatic reactions in the plant
4. Plant health or plant pathology
5. Glyphosate
6. Calcium

Let's explore just a couple of these: #1 and #3

Enzymatic reactions in plants are how plants grow and reproduce. These reactions are activated or switched on by catalysts. What are the catalysts? They are minerals and especially trace minerals.

Did you know plants need water? Of course you did, but did you know plants need some of that water for its hydrogen from H₂O? This is combined with carbon dioxide to create simple plant sugars. This, of course, is the process of photosynthesis. But how does it happen in plants? It happens through enzymatic reactions.

Here is what I didn't understand all of these years. The enzymatic reaction that splits the water molecule is catalyzed or switched on by...that right! Manganese.

I never knew this until I started listening to Don Huber, and I have to confess that it took more than a single hearing to really understand this simple concept.

Now, imagine a plant critically short on Manganese. All the functions of Manganese in the plant are idling instead of working full bore. This need for Manganese is one reason why we like to spray WayAhead 7X at least 1 time during the season. Ideally, we strive for 2 quarts per acre per season. For forages or produce use WayAhead 10X instead.

Today, International Ag Labs is pleased to invite you to our 10th Annual Field Day

Dr. Huber will be our speaker. His topic will be *Eyes On: Manganese – a careful look at the many interactions of Manganese*.

After lunch Dr. Huber will take off his scientist hat and talk to us as an elder statesman, grandfather, and great grandfather looking into the future. His topic will be *Where Is Agriculture Now – Where It Needs to Be*. We hope you can join us.

After Dr. Huber's presentations, Wendell Owens will give a short presentation about the Field Day at his farm. Wendell will discuss fertility, weed control, and the non-GMO varieties in the plot at his farm.

The date for our Field Day is Thursday, August 29th. This is a free event if you register by Friday, August 23rd. Otherwise, the cost is \$20 per person.

To register you may do so online on the Upcoming Events page or simply call MerriDee at 507-235-6909.

Location:

Knights of Columbus Hall
920 East 10th Street
Fairmont, MN 56031

Time:

9-9:30 am – Registration
9:30-9:45 am – Welcome, Jon Frank
9:45 am-12 pm – Don Huber 1st Session
12-1 pm – Lunch
1-2 pm – Don Huber 2nd Session
2-2:15 pm – Information on Field Plot, Wendell Owens
2:30-4 pm – Wendell Owens Farm, Field Plot

With Respect,
Jon Frank, International Ag Labs