Review of Purdue's article

An interesting article and I can't disagree with most of it, but you have to read it slowly to get the full message and understand what they are really saying. You will notice that they acknowledge Mn deficiency used to be seen only below 20 PPM tissue levels and now they are seeing Mn deficiency even at 30 to 40 PPM. I think that is about a 50 to 100 % reduced efficiency. Yes Mn deficiency has been common on certain soils for 75 years BUT is also showing on many of the non-typical Mn-deficient soils. Glad to see mention of the various Mn sources differing in effect on herbicidal activity of the glyphosate (chelating ability) - BUT based only on stunting - you notice there is no plant killing (herbicidal activity) with even the glyphosate alone (sterile greenhouse soil, Purdue pasturizes all greenhouse soil for common use). I didn't realize we only wanted to stunt weeds rather than kill them! This should have been the first thing noticed since the plants have been growing for a week or more after the glyphosate was applied (most plants are 'sanforized' and don't shrink, but merely stop growing when the Shikimate pathway is inhibited!) AND THEY STILL LOOK GREAT - although short with the glyphosate. This is a good picture/study to reinforce the herbicidal mode of action. They also recognize the need to apply Mn 7-10 days after the glyphosate to avoid losing it physiologically. MnEDTA "is the least antagonistic Mn fertilizer to glyphosate" - but notice it is still 3 X the heigth of the glyphosate alone - AND neither is killed!!!! I have made some real inroads in the thinking!!! Understanding comes slowly - Jim C will remember "hidden hunger" when he goes to bed.

pH 7.0 (table is pretty good. How about 7.5-11 where we see even more severe interactions because it isn't hidden as well? AGAIN WHY CAN'T GLYPHOSATE KILL THE VELVET LEAF PLANTS - EVEN WITHOUT THE TANK MIX INTERACTION WITH MN? Also, what is the tank mix interaction (chelating and immobilization of both) from ("not understood").