**Summary of 2018 sampling plans at Marsden**

**Corn phase of CS (2-yr) and CSOA (4-yr) systems**

**8 total plots**

Full soil nutrient analysis – at corn planting, 0-90cm depth in 30cm increments **DONE May 17**

Root exclusion cores - installed after corn planting **DONE May 26**

Root depth sampling – V2 (missed it), V4 (May 28), V8, V12

Aboveground biomass sampling – V4 (plus plant counts), V12, R3, R6 (all organs separated)

Total C and N – R6

0-150cm root and soil sampling - maybe around R6 to coincide w/aboveground biomass sampling

Kernal number + weight - after harvest

Soil moisture sensors – 15 and 45cm in each plot, installed after corn planting, removed when needed **DONE, installed May 18**

Water tables – maybe, maybe not, we might have a new installation method that makes them very very deep and very very permanent, might not be appropriate for your site. APSIM can model water tables if we need.

**Update, April 19 2018**

Use AgSource in Ellsworth IA for nutrient analysis. We will do a basic fertility package, plus the CEC, zinc, sulfur, copper, iron, manganese, boron, soluble salts. Castellano will do No3-N, Nh4-N, and pH.

I also need to do bulk density with the penetrometer. **DONE early May**

Take pictures and sample residue at planting. **DONE early May**