

Weed Emergence Working Group Meeting  
January 9<sup>th</sup>, 2019  
NEPPSC Conference, Baltimore NY

### Agenda

6:30pm: NE-IPM Working Group Grant wrap-up: revisit objectives & make sure we've completed them.

6:40pm: Other project ideas folks would like partners for?

6:50pm: Multistate field season planning:

Below is the current idea for the 2019 field research on seedling emergence across the NE. I think there are some holes we should address in tomorrow's meeting, which I've inserted in green.

- Decision not to address till vs no-till agriculture: Bullied et al 2003 (WS) found significant differences in emergence timing for small-seeded weeds in conventional vs conservation (no-till) systems, and hypothesized that burial depth was the main reason. Davis et al 2003 (WS) found difference in giant ragweed emergence based on burial depth (not a small seed). I think we should revisit this with the group to make sure we want to ignore this.
- Shift to meter squared plots- one per site/weed is OK. I have seen very few emergence studies without replication at the site level, and would like to revisit the impacts of this decision on publishability with the group.
- Collect your species set from the whole plot if you can, subsample if you have to (number of total individuals over the season is important to the model). Most of the studies I've seen have  $\frac{1}{4}$  or  $\frac{1}{2}$  m<sup>2</sup> plots – let's just make sure this is still a good idea?
- Mark V-G and others who wish to overseed to get enough plants emerging will continue to do so. I'd like to verify our decision in light of the seed burial impacts on emergence timing.
- Site specific weather data is great; if you don't have a station at your site, we can use gridded data to fill in for that location. We think. We'll revisit this at the January meeting and get Art to tell us about his new work with the computer science folks. Art is actually at an atmospheric science talk and can't join the meeting, sadly. That work is in part on this website: <https://datalake.eas.cornell.edu>.
- Using soil temp/moisture loggers at each field site: we didn't make a decision on this, but I think we should.
- Feel free to put plots in different fields/areas for different species – we just want to get data for each species from each state. Do collect any individuals from your other focus species that show up wherever you're looking, though, as a wide range of soil and weather types will make a more robust model for your area.
- The threshold number of individuals per site we'll set for the first year at about a hundred individuals over the season? At the last meeting, we agreed to revisit this at the winter meeting.

- Lots of coverage of different soil types will really help the model. Lots of differences in weather is nice too. Do what you can given your work load.

7:20pm: Review paper of weed emergence literature: at the last meeting, we said that Carri would be working on a weed emergence review paper for northeastern summer annuals. Acutally, Mohsen Mesgaren will be leading this, and will be joining the meeting with some questions about search terms:

- 1- Should we restrict the geographical scope of paper to North America, USA, or look for any paper on modeling seedling emergence regardless of the location? There are many good studies in Europe that will be lost if limit our work to the US!
- 2- Should we restrict the scope of paper to studies that have modeled emergence under field conditions?
- 3- What other information/details should we include in or exclude from the current list?