

Simulating Other Wastewater Inputs in Phase 6 Model

Presentation to WWTWG
08042015

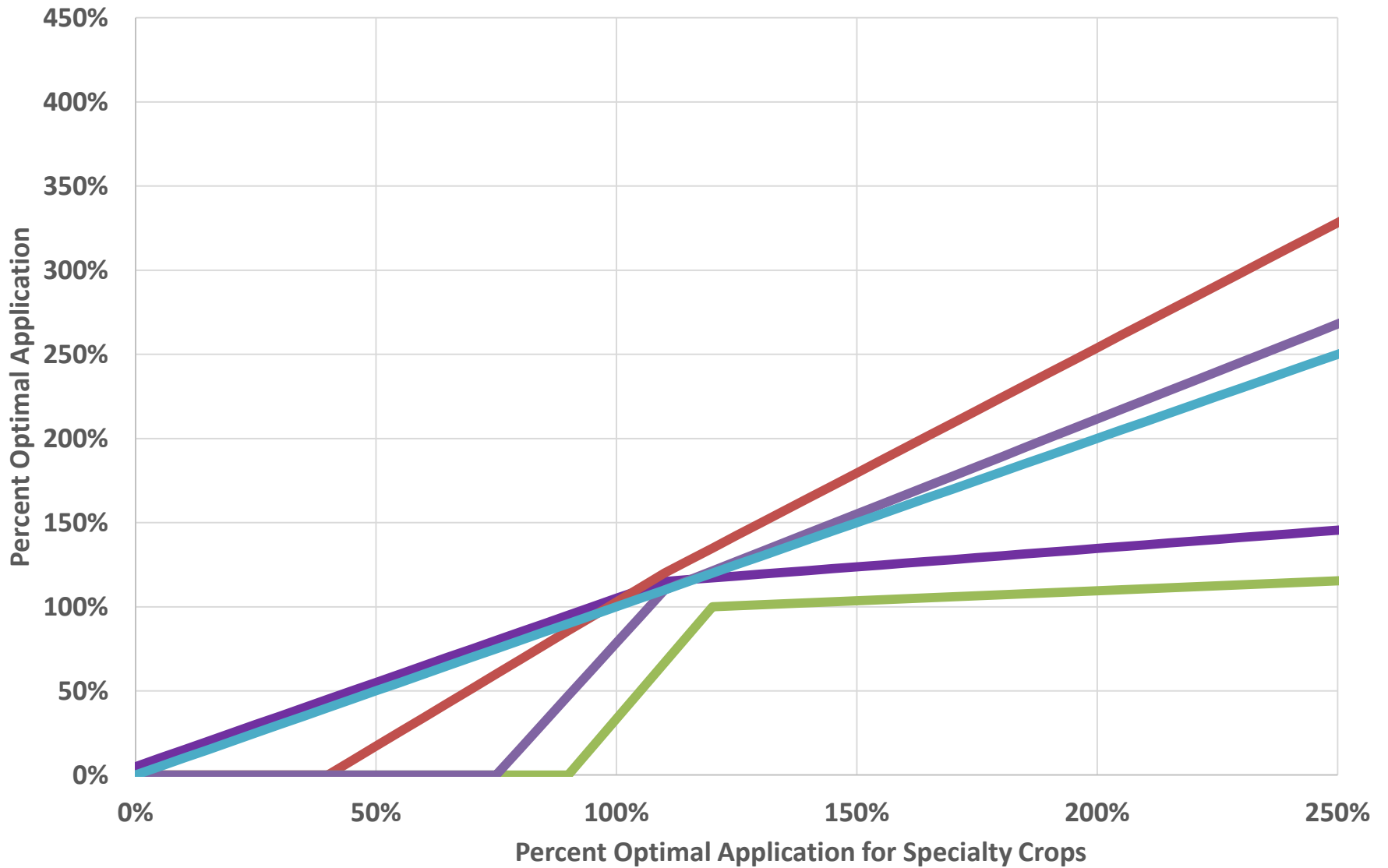
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Biosolids and Ag Spray Irrigation

- Multiply dry tons (or gallons) by concentrations to determine lbs of each nutrient constituent available in an individual county for a single year.
- These additional lbs of nutrients are made available to agricultural crops in the county in the same way that manure is made available.
- Scenario Builder has a “manure optimization” process that will distribute the manure, biosolids and spray irrigation onto crops in a similar way as farmers might.
- Scenario Builder and the Watershed Model automatically calculate uptake and nutrient loss from agricultural lands.
- Nutrient losses will be reported on agricultural land uses.

Nutrient Spread Slopes for Manure N



Grains/Silage Non-Legume Hay Row/Hay Legumes Pasture Specialty Reference

(M)unicipal (W)astewater (L)and Applications

- Nutrient losses from Municipal Spray Irrigation on non-agricultural lands, Rapid Infiltration Basins and Large Monitored Onsite Systems will be reported under the load source name, MWL so you can track these loads through the model.
- **Non-Ag Spray Irrigation** inputs will be based upon total gallons and concentrations of species reported by states.
 - Nutrient Uptake will be estimated using Maryland's uptake estimates for herbaceous areas if state does not provide its own uptake estimate. (Greg Busch, MDE to provide equation)
 - Attenuation within the soil will be based upon the septic panel's attenuation estimates for that geographic area and soil type.
- **Rapid Infiltration Basin** inputs will be based upon total gallons and concentrations of species reported by states.
 - No nutrient uptake will be estimated.
 - Attenuation within the soil will be based upon the septic panel's attenuation estimates for that geographic area and soil type
- **Large Monitored Onsite System** inputs will be based upon monitored discharge data for gallons and concentrations provided by states.
 - No nutrient uptake will be estimated.
 - Attenuation within the soil will be based upon the septic panel's attenuation estimates for that geographic area and soil type if monitoring data is not provided down-slope of the site.

Timeline

- Final Biosolids and Spray Irrigation Data was due on July 31.
 - Biosolids and agricultural spray irrigation WILL be included in October 1, 2015 Phase 6 calibration.
- Revisions to Biosolids, Ag and Non-Ag Spray Irrigation, Rapid Infiltration Basins and Large Monitored Onsite Systems will be due April 1, 2016.
 - Revised calibration runs in 2016 will contain all sources listed above.

Questions?



Photo courtesy of Virginia Tech Extension