

Biosolids in the Bay Model Presentation to the Ag Workgroup 04212016

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Organization

Biosolids Ad Hoc Task Force

- Overseen by Wastewater Treatment Workgroup in February
- Members include:
 - biosolids regulators from VA DEQ, MDE, DE DNREC, W VA DEP, PA DEP;
 - land application contractors or inspectors (Synagro, Material Matters, MD Environmental Service)
- Have held three calls so far; wrap up by early May

For more info:

- <http://www.chesapeakebay.net/calendar/event/23861/>

Scope / Purpose

- Encourage further submission of biosolids data by states.
- Develop recommendations for how biosolids data should be used in Scenario Builder and to develop rules for how to address data gaps.

Definition of Biosolids

- For the purposes of providing input to the Chesapeake Bay Program's modeling framework, biosolids are defined as the solid, semisolid, or liquid materials removed during the treatment of domestic sewage in a treatment facility – when those materials have been further treated to meet the standards established in state and federal regulations for use of such residual materials for application to farmland⁽¹⁾. Any influent material that is processed through such treatment facilities, including food waste, can contribute to the total mass of biosolids.

Notes:

- (1) Biosolids also are applied to forest land, to mine land reclamation sites, and in a variety of horticultural settings in the urban environment. These uses will not be tracked for their impact on nutrient loads under the CBP modeling framework.
- **Septage (?)**— some states want to track; others have noted that it generally accounts for less than 1 percent of total nutrients from wastewater applied to farmland. Almost all of DE's biosolids are septage.

CBP Model Definition of Biosolids

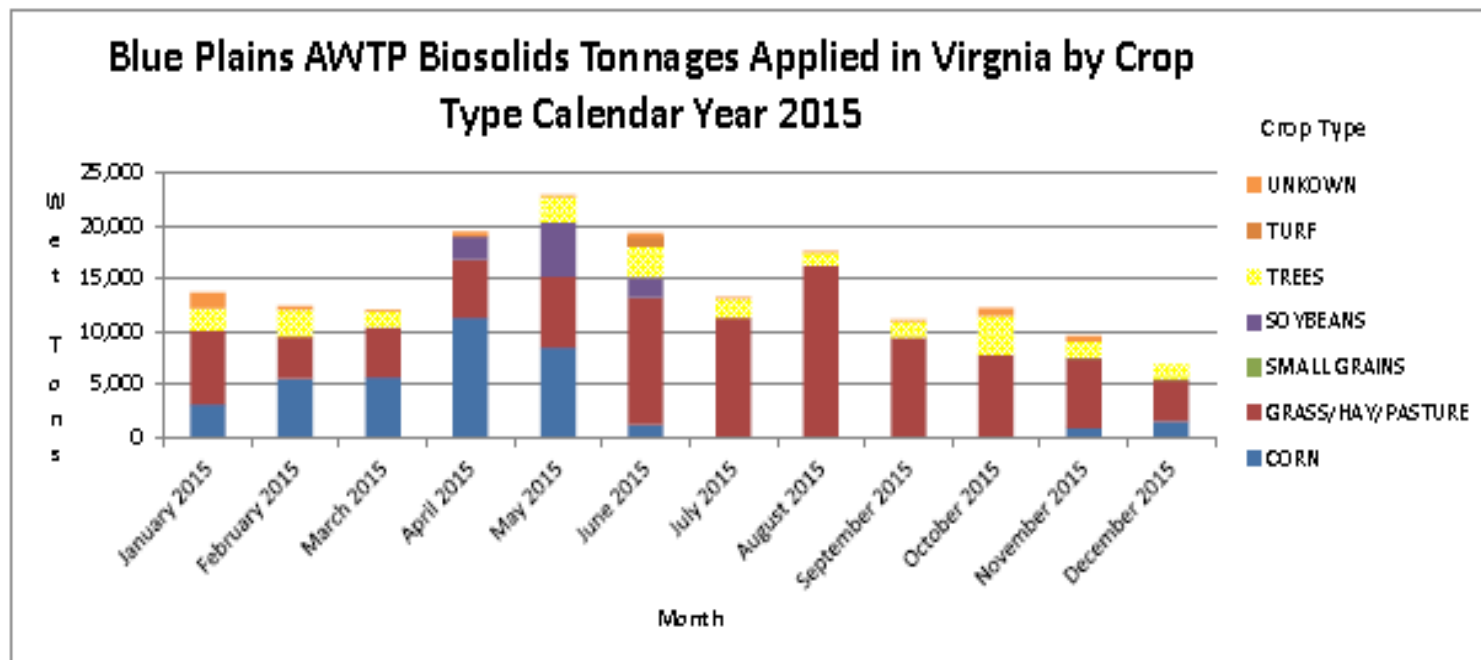
What's in:

- Biosolids applied to farmland
- Septage applied to farmland (?)

What's out:

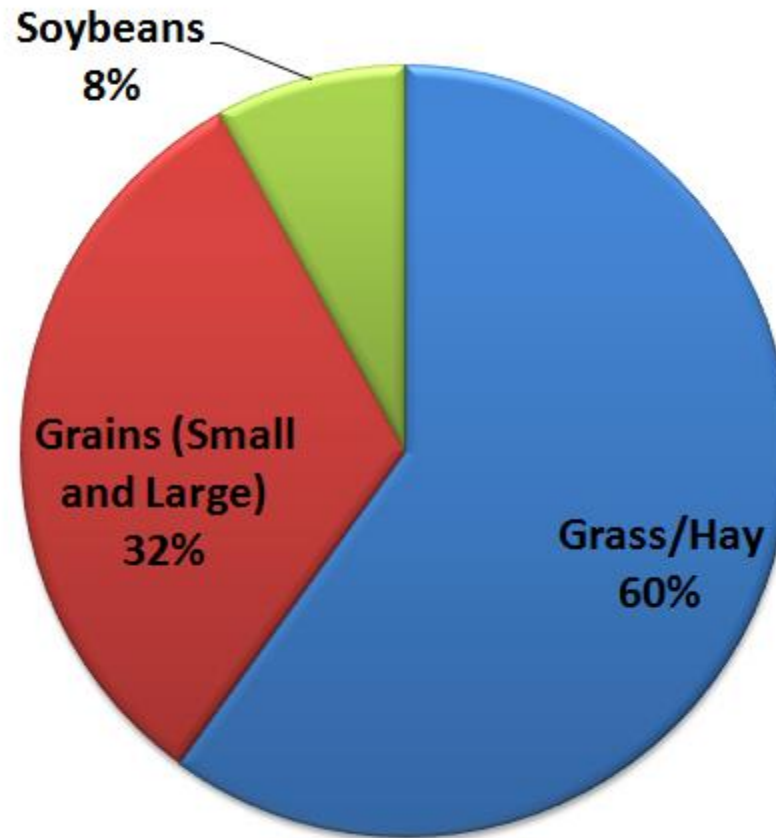
- Biosolids applied to forest or mine reclamation sites
- Class A biosolids products applied in urban areas
- Biosolids that are incinerated, landfilled, shipped out of the watershed or used in cement kilns

Some Considerations



- Forest land application accounted for approx. 14 % of Blue Plains total tonnage in 2015 (high year).
- Mine land reclamation = 0
- Septage represents a tiny fraction of total biosolids land application nutrients in MD, PA and VA (well less than 1 percent). However septage accounts for almost all biosolids in DE.

Blue Plains Biosolids Applications to Crop Groups



Potential Biosolids Application Curves

- Group wishes to distinguish biosolids applications from manure applications as the data suggest they are prioritized to different crops.
- Group will review applications to crops from multiple states to determine the shape of the application curves.
- Group is not recommending a change in application timing. Biosolids will likely be applied at the same time that manure would be applied according to state application timing recommendations.

