Beta 3 Nutrient Spread Update

Update from Agricultural Modeling Subcommittee to WQGIT

6/27/16
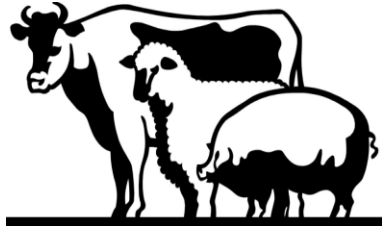
Curt Dell

USDA-ARS

Ag Modeling Subcommittee Chair

Phase 6 Scenario Builder Conceptual Model

Livestock Manure (and Biosolids)

Fertilizer

Barnyard

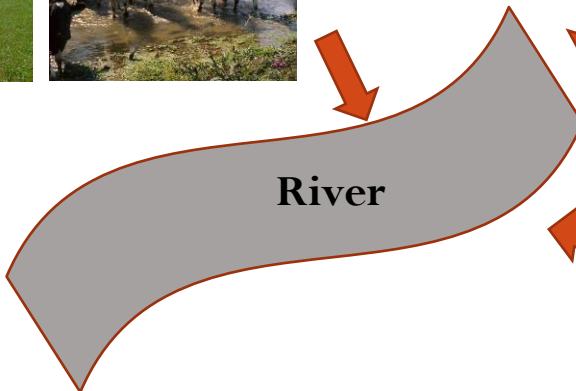**Pasture**

Access Area

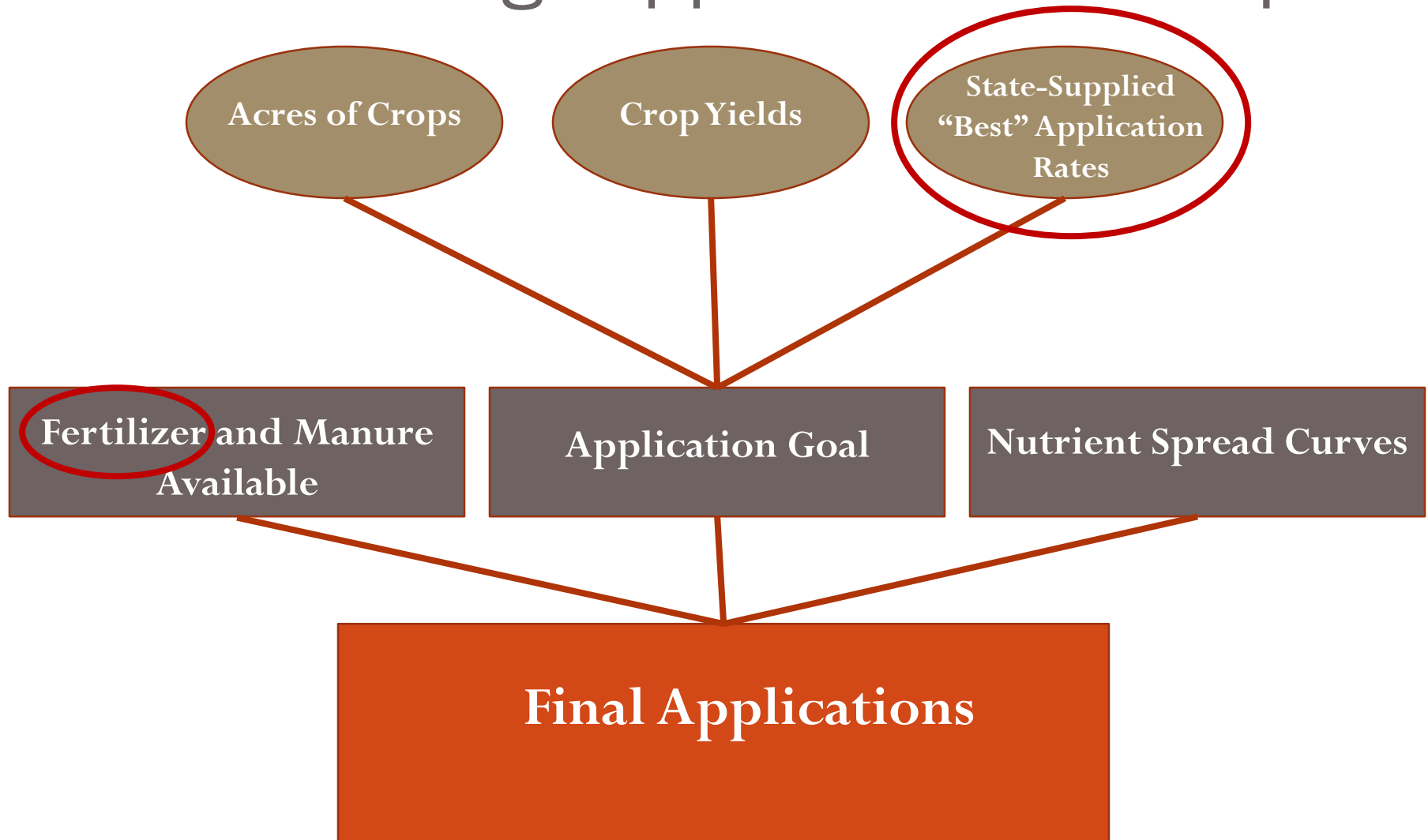**Nutrient Application Prescription**

River

Crops

"Prescribing" Applications to Crops

Plan

- CBPO Staff will run nutrient spread two ways:
  - Beta 3a: Utilize fertilizer sales data as used in previous beta runs.
  - Beta 3b: Apply fertilizer to fulfill crop application goal after manure is applied (no fertilizer sales data)
  - Both runs will use <u>revised</u> application rate tables and NM and non-NM acres
- AMS will review results of beta runs prior to July Ag Workgroup meeting.
  - Outlier counties will be identified where methods did not work and remedial measures will be proposed.
- Ag Workgroup to determine which nutrient spread to use for final calibration at July Ag Workgroup meeting.

What's new in Beta 3?

- **Crop Application Goals**
  - Group of Agricultural Workgroup state representatives worked with the AMS to revise crop application goals so they better reflect land-grant university recommendations.

- **Non-Nutrient Management Application Goal Multiplier**
  - Subgroup of Nutrient Management expert panel currently working on revisions based upon new Crop Application Goals.

- **Legume Fixation**
  - AMS approved use of new equation to estimate legume fixation based upon estimates of nitrogen from soils, manure and inorganic fertilizer.

- **Crop Removal**
  - AMS reviewed existing crop removal/uptake values, and agreed to adjust values for corn, beans, pasture and non-legume hay.

- **Barnyard Area for Other Cattle**
  - Area will be adjusted so it better reflects NRCS estimates of area used by cattle