
Droplet Size Models with Nozzle Flowrates

Brad Fritz

USDA-ARS

Aerial Application Technology

Research Unit

College Station, TX



Model Updates

- Same droplet size models with nozzle flow rate data added.
- You set the **Effective Swath Width** and **Application Rate**.
- As you select Nozzle type, Orifice, Pressure, Angle and Airspeed:
 - The number of nozzles required is determined.

Nozzle Models with Flow Rate

High Speed

Low Speed

New Interfaces

- What if you are unsure of the type of nozzles that will work for a given application scenario.
- Based on the Airspeed, Effective Swath Width, Spray Rate, and Droplet Size Classification required a listing of setups that meet these parameters is given.

2 Versions

- For both, you specify
 - Airspeed
 - Spray Rate
 - Swath Width
 - Droplet Size Class (COARSE, MEDIUM, etc...)
- Version 1
 - You set the number of nozzles
- Version 2
 - You set spray pressure and Max/Min number of nozzles.

Nozzle Number Set

Pressure Set

Final Thoughts

- Add value to the existing models.
- Encourage their use by adding setup calculations that you normally would do.
- Working on additional version that provides multiple orifice size results. Contact me if you are interested.

- If you have any thoughts on additional features that would be helpful, please let me know.

Find Us At:

<http://tiny.cc/AATRU>