



Adulticiding

Making Each Spray Run Count

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Overview

- A Day With Brunswick County
- Application
 - Equipment
 - Techniques
- Spraying
 - Spot Spray
 - Do Not Spray
 - Operational/Weather Conditions
 - Spray Books
 - Forms



A Day With Brunswick County

- Team meeting
- Citizen requests
- Evaluate the route
- Check spray books
- Equipment check
- Landing counts
- Treat spray zone
- Record Results



A Day With Brunswick County

- **Pre-Treatment**
 - Team meeting
 - Equipment check
 - Evaluate the route
 - Update Spray books
- **Post-Treatment**
 - Adulicide reports are filled out for each spray mission.
 - Start time, end time, total hours,
 - ULV machine hours,
 - Number of gallons of product used,
 - Acres treated,
 - Total miles aduclided.



A Day With Brunswick County

- Applications and Equipment
 - Total Capacity 6 Trucks and 6 ULV Grizzly Sprayers.
 - 3 trucks and sprayers running at a time. Run Tuesday-Thursday
- Seasonal Frequency of Applications-
 - Spot Sprays May till?
 - Coastal spraying starts in June
 - County wide spraying typically starts in August.
 - Aedes albopictus Spraying cut spray route in half, typically spraying from 5 to 7:30PM





The Application

Spray Zones vs Spot Sprays

Container vs Floodwater

Urban vs Rural Spraying



Application Equipment

- There are a few pieces of application equipment used in a adulticiding application.
 - **Truck Mounted**-depending on where the treatment area is depends on if you need a four-wheel or two-wheel drive truck.
 - **Four-Wheeler**-we have a small ULV that can be mounted to our four-wheeler for small applications.
 - **GPS Units**-We have a GPS to be able to find the address of a investigation and to help us navigate the spray zone.



Smart Flow Systems

- GPS tracking
- Adjust your desired speed of spraying
- Sprayer automatically turns on/off according to setup.
- Brunswick County sprays between 5-20 mph
- Broader mph range assists in different situations. (example)
- GPS tracks exact acres and mileage sprayed
- ULV hrs
- Gallons of product used
- Allows for more accurate information about spray routes





Application Techniques

There are different techniques we utilize and implement at Brunswick County:

- **Spot spraying**-when the population is high in one section of the treatment zone.
- **Rural spraying**-We have several spray zones that are in rural areas. When spraying these zones we do not continuously spray we spray from house to house.
- **Urban Spraying**-Along the coast we have more urban spray zones. In this situation, we spray the entire area since the roads are so close together.



Spray Zones in Brunswick County



- As of 2018 we have 37 spray zones with about 40 miles in each zone.
- The spray zones are used to determine where to spray to keep from retreating the same area.
- Each spray route is based on a 4hr spray run or 40 miles of streets
- Approximately 50 mile radius per route
- Operator preference
- All types of communities

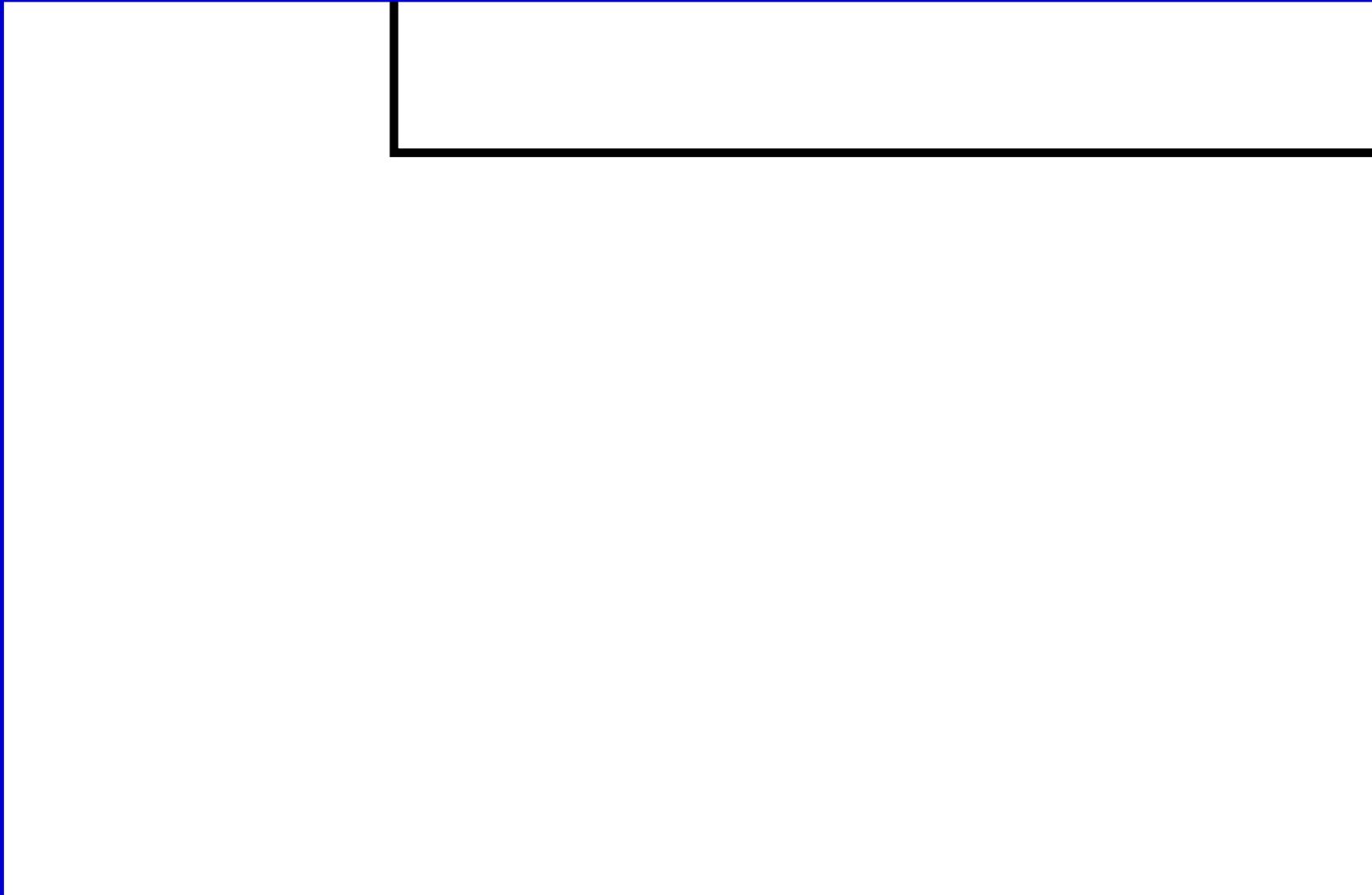


Treating a Spray Zone

- **Wind speed**-If the wind is blowing over 10mph, you will not be able to spray the proper amount of product staying in the mosquitos fly zone.
- **Temperature**-If the temperature is too hot at ground level, the spray will be released and will not be in the air column where mosquitos fly.
- **Layout of the area**-This will determine how you will want to treat the area to complete the spray zone the best.
- **Time of day**-The time of day will determine how many citizens are still out or you may encounter.
- **Citizens**-When you are spraying an area and you come up to a citizen in their yard or walking, be courteous and turn the sprayer off so you will not spray them directly.



37 Spray Zones





Spot Sprays

- Address individual mosquito complaints.
- Work best if used in conjunction with an organized treatment strategy.
- Limitations.
 - Time consuming.
 - May require multiple applications.
 - May be the only option available in sparsely populated areas. (example)



Do Not Spray List

- Bee Keepers
- Call before spray
- Do not spray
- Organic farmers
- Pesticide sensitive



Operational Considerations

- Each protected area identified has a control strategy that best accommodates its treatment for mosquitoes.
- Experienced operators familiar with the treatment areas and potential hazards of each treatment area is critical. (example)
- Written records of the treatment history of each protected area will facilitate prioritizing future ULV responses. (notes)
- Number of ULV's available.
- The total area identified as protected.
- The amount of mosquito production within the treatment zones.
- Treatment frequency.
- Timing of the application, (dusk & dawn).
- Surrounding habitat.
- Wind direction. (example)
- Accessibility of equipment.
- Surveillance history of each protected area.
- Area traffic.
- Pedestrians (joggers, kids at play, baby strollers)



Weather Conditions

- Do not spray in winds over 10mph



- Do not spray in rainy conditions





Spray Books (in-house policy's)

- Brunswick County Mosquito Spraying Policy
- Mosquito Spraying Concerns
- Emergency Telephone Numbers
- Brunswick County Auto/Property Loss report
- Brunswick County Medical treatment Providers
- Accident Reporting Procedure
- 24 hr Adverse Incident Notification form
- 30 day Written Adverse Incident Notification Form
- Best Management Practices for Integrated Pest Management



Review

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Conclusion

There's only one way to spray and it changes everyday. You have to make the right call.

The Wrong Way



The Right Way

