



Between-Field ATV Clean-up & Sanitation

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Why the Need to Clean Agricultural-Use Vehicles

There are several reasons why individuals would want to take time to clean and maintain their agricultural-use vehicles, such as all-terrain vehicles (ATVs):

Maintenance. Heavy use often leads to accumulation of mud and debris, which can mask mechanical problems that could be easily identified on clean vehicles. Cleaning the machine to perform a regular check-up for maintenance and to reduce risk of fire hazards is a good practice. Cleaner ATVs result in increased employee pride and more efficient performance. In addition, equipment that has been properly cleaned and maintained during the life of the unit usually results in higher resale or trade-in value.

Movement of weed and disease issues. Material accumulated on the tires and chassis of ATVs can easily move pathogen-infested soil and weed seed from contaminated fields to clean ones.

Prevention is Crucial to Pest Management

Often used for scouting purposes, ATVs make many visits to numerous fields over a growing season, increasing the probability of inadvertently transporting unwanted biomaterial from one field to another. This material may attach itself to the undercarriage, steering components, tires, and parts of the frame, particularly in tight spaces underneath and on the frame of the vehicle.

While it is unlikely that operators will be able to remove 100% of the biomaterial from a vehicle, it is possible to reduce the risk of spreading material from one field to another by taking a few minutes to follow these simple clean-up steps:

- 1) **Remove all plant material, living and dead.** Some weed species produce upwards of 500,000 seeds per plant, and species like Palmer amaranth or waterhemp hold their seed very tightly, making accidental spread with plant material more probable.
- 2) **Remove loose clods of soil that has accumulated on tires, wheel wells, or fenders.** Soil transported from one field to another may contain potential weed seed and other pests, like Soybean Cyst Nematode (SCN). Once SCN becomes established in a field, it cannot be removed and often becomes a lifelong management issue for the landowner.



Equipment Sanitation Series

Between-field Recommendations



Figure 1. Once the unit leaves the field, assess the situation for risk of transporting biomaterial and soil offsite.



Figure 2. Identify the problem areas before moving on to the next field.



Figure 3. Remove as much plant and soil material as you reasonably can to limit unintended transport.

Guidelines for Power Washing/Sanitizing

Some vehicle clean-up requires more than simply removing loose material. A more thorough power washing and sanitizing of the vehicle will provide additional removal of soil and plant pathogens.

When preparing to clean agricultural use vehicles, personal PPE should be worn to reduce the risk of injury. Hearing protection, safety glasses or safety goggles, leather gloves, and no-slip shoes or boots are just a few examples of PPE that can prevent high pressure water or flying debris from injuring your eyes, hands, and feet. Consult the power washer operator's manual before beginning the job. Below are a few basic steps when it comes to washing and sanitizing equipment:

Site Selection:

- 1) Unpaved areas consisting of grass or gravel allow for water infiltration. Medium and fine textured soils below the surface can serve as a filter and reduce surface runoff. Always determine what is environmentally appropriate for the site.
- 2) Avoid potential contamination. Never wash your equipment within 100 feet of a wellhead or drainage tile inlet.

Washing:

- 1) Choose the correct nozzle or tip for your power washer and hold the unit two to three feet from the surface being cleaned. Pre-soaking is recommended to loosen material, saving time and water during cleaning.
- 2) Save time by working from the top of the unit and making your way towards the bottom to avoid biomaterial, soil, and debris running over the freshly cleaned areas.
- 3) Use smooth, left to right horizontal motions while covering a three- to four-foot area in one pass. This method will increase the efficiency of your movement.
- 4) If the use of a cleaner is involved, consult the power washer's operators manual for instructions about the type and volume of cleaner needed. This will help determine what products are recommended or acceptable, as well as any precautions that should be taken to limit environmental impact.

Sanitation:

- 1) Use a 1% bleach solution applied via a backpack or deck (pump) sprayer.
- 2) Soak surface for 15-20 seconds with solution, then thoroughly rinse to prevent corrosion.



Figure 4. While you may not be able to remove 100% of the material...



Figure 5. ...any amount of biomaterial you prevent from spreading field to field can be significant.



Figure 6. It only takes a small amount of weeds and soil transported to another field to create...



Figure 7. ...a long term management situation resulting in increased costs and reduced future crop yields.

Bleach to mix for 1% solution	Gallons of water required
1.3 oz	1 gal
2.6 oz	2 gal
3.9 oz	3 gal
5.2 oz	4 gal
6.5 oz	5 gal