STANDARD OPERATING PROCEDURE

Pesticide Application SOP

Document no.	SOP-AGR-001
Revision	1.0
Owner	Farm Manager
Effective date	September 15, 2026
Review cycle	Every 12 months

1. Purpose

To apply crop protection products safely and in line with the product label and local law, protecting applicators, workers, the crop and the environment.

2. Scope

Applies to mixing, loading, applying and cleaning up after any pesticide, herbicide or fungicide application on the farm. Specific rates, mixing instructions and re-entry intervals always follow the product label and local law rather than this SOP.

Definitions

Re-entry interval	The time that must pass after an application before workers can enter the treated area without protective equipment, as set by the product label and local law.
Restricted-use product	A pesticide that can only be applied by, or under the direct supervision of, a licensed or certified applicator.
Drift	Pesticide spray or dust moving beyond the target area, often due to wind or equipment settings.

3. Responsibilities

Pesticide Applicator	Reads the label, calibrates equipment, applies the product, and completes the application record.
Farm Manager	Approves which product is used where, confirms applicator certification, and posts re-entry notices.
Field Worker	Stays out of treated fields during the re-entry interval and reports any posted sign that is missing or unclear.

RACI matrix

Activity	Pesticide Applicator	Farm Manager	Field Worker
Select the product and review the label	R	A	-
Calibrate and inspect application equipment	R/A	C	-
Apply the product following the label	R/A	I	-

Activity	Pesticide Applicator	Farm Manager	Field Worker
Post re-entry signs and enforce the interval	R	A	I
Complete the application record	R/A	C	-

R = Responsible, A = Accountable, C = Consulted, I = Informed

4. Materials and PPE

Materials, tools and systems

- Product label and safety data sheet
- Calibrated sprayer or applicator equipment
- Mixing and loading area with spill containment
- Wind meter or weather station
- Re-entry interval warning signs
- Pesticide application log
- Triple-rinse equipment for containers

Personal protective equipment

- Chemical-resistant gloves as specified on the label
- Respirator or mask as specified on the label
- Protective coveralls or apron as specified on the label
- Eye protection or face shield
- Chemical-resistant boots

5. Procedure

Step	Task	Owner	Done
5.1	**Confirm the product and applicator certification** Before any application, the farm manager confirms the correct product is approved for the target pest and crop, and that the applicator holds any certification required for that product.	Farm Manager	☐
5.2	**Read the label in full before starting** Read the entire product label, including the rate, target pest, PPE requirements, mixing instructions and re-entry interval, before opening the container. **Warning:** Always follow the product label and local law for rates, PPE and re-entry intervals. Never rely on memory from a previous application.	Pesticide Applicator	☐
5.3	**Check weather conditions** Check wind speed, direction and any rain forecast against the limits and guidance on the label before beginning, to reduce the risk of drift or runoff. **Checkpoint:** Wind speed and direction fall within the limits stated on the product label before application begins.	Pesticide Applicator	☐
5.4	**Put on the required personal protective equipment** Put on the gloves, respirator, coveralls and eye protection specified on the label before mixing or handling the product. **Warning:** Never mix, load or apply a pesticide without the personal protective equipment listed on its label.	Pesticide Applicator	☐

Step	Task	Owner	Done
5.5	**Inspect and calibrate the application equipment** Check the sprayer or applicator for leaks, worn nozzles or damaged hoses, and calibrate it to apply the rate specified on the label. **Checkpoint:** Equipment output is checked against the calibration target before filling the tank.	Pesticide Applicator	☐
5.6	**Mix and load the product in the designated area** Mix the product at the rate on the label in the designated mixing and loading area with spill containment, using clean water and the correct measuring equipment.	Pesticide Applicator	☐
5.7	**Apply the product following the label rate and method** Apply the product at the labeled rate and method, keeping within the target field boundary and any buffer zones required near water, homes or sensitive crops. **Warning:** Never exceed the rate on the label or apply closer to a buffer zone than the label allows.	Pesticide Applicator	☐
5.8	**Post re-entry interval signs immediately** As soon as the application starts, post signs at field entrances noting the product, application date and time, and the re-entry interval from the label. **Checkpoint:** Re-entry signs are posted at every entrance to the treated field before workers could enter it.	Pesticide Applicator	☐
5.9	**Keep workers out of the field during the interval** Do not allow any worker to enter the treated field until the re-entry interval on the label has passed, unless they are wearing the PPE required for early entry tasks permitted by the label.	Farm Manager	☐
5.10	**Triple-rinse and dispose of empty containers** Triple-rinse empty containers following the label's instructions, add the rinse water to the sprayer tank, and dispose of or recycle containers according to local law.	Pesticide Applicator	☐
5.11	**Clean equipment and remove PPE safely** Clean the sprayer and mixing equipment in the designated area, then remove PPE in the order that avoids contaminating skin or clothing, and wash immediately after.	Pesticide Applicator	☐
5.12	**Store remaining product securely** Return any unused product to the locked pesticide storage area, keeping it in its original labeled container away from food, feed and water sources.	Pesticide Applicator	☐
5.13	**Respond to a spill or exposure incident** If a spill or exposure happens, follow the label's first aid and spill response instructions immediately and notify the farm manager without delay. **Warning:** Follow the safety data sheet and product label immediately for any spill or suspected exposure, and seek medical help if symptoms appear.	Pesticide Applicator	☐
5.14	**Complete the application record** Record the product, rate, field, date, time, weather conditions and applicator name in the pesticide application log as soon as the application is finished.	Pesticide Applicator	☐

6. Quality checks

- Every application record shows the product, rate, field, date and weather conditions.
- Re-entry signs are posted before anyone could enter the treated area.

- Equipment calibration is checked and recorded before each application.
- PPE used matches what the product label requires for every application.

7. Records

- Pesticide application log
- Equipment calibration record
- Applicator certification records
- Safety data sheets on file for every product used

8. KPIs

- Percent of applications with a complete application record
- Re-entry interval violations reported
- Equipment calibration checks completed on schedule
- Spill or exposure incidents per season

9. Common mistakes

- Applying from memory instead of rereading the current label before each use.
- Skipping calibration and guessing at the application rate.
- Letting workers into a treated field before the re-entry interval has passed.
- Storing unused product in an unlabeled or unlocked container.

10. Revision history

Revision	Date	Description	Reviewed by
1.0	September 15, 2026	Initial release	Ilia Pirozhenko

Approval

Prepared by	Approved by	Date

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