

AGRICULTURAL EMPLOYER REQUIREMENTS DURING PESTICIDE APPLICATIONS ^{170.405}



The WPS includes several provisions to prevent workers, unprotected handlers and other persons from pesticide exposure during applications. Some of these requirements are for agricultural employers and are described in the following sections of this chapter. Chapter 4: Additional Handler Employer Requirements covers other requirements specifically for handler employers and/or handlers.

No one other than an appropriately trained and equipped handler involved in the application may be in the AEZ during an application of WPS-labeled pesticide products.

Entry restrictions for outdoor production - application exclusion zone (AEZ)

The “Application Exclusion Zone” or AEZ is a zone or area surrounding pesticide application equipment that exists **only during** outdoor production pesticide applications. When applications of WPS-labeled pesticide products are in progress on their establishments, agricultural employers must not allow or direct any worker or other person, to enter or to remain in the treated area or the AEZ that is within the boundaries of the establishment. ^{170.405(a)(2)}

Basically, the AEZ requires that agricultural employers keep workers and other persons a specified distance away from the pesticide application equipment when pesticide applications are taking place.

After the application is complete, the AEZ no longer exists and the treated area is subject to the REI specified on the pesticide product labeling and to the relevant WPS restrictions after applications. ^{170.405(a)(2) & (3)}

The requirement for the agricultural employer to keep persons out of the AEZ only applies within the boundaries of the establishment because the agricultural employer cannot be expected to control persons off the establishment. There is a WPS provision to suspend applications (discussed in Chapter 4: Additional Handler Employer Requirements) that does apply beyond the boundaries of the establishment because the handler (applicator) and handler employer do have control over the pesticide application.

Effective January 2, 2017:

- *The agricultural employer must not allow any workers or other persons in the AEZ that is within the boundaries of the agricultural establishment when the application is occurring.*

Remember: If the pesticide product labeling contains specific instructions or requirements that conflict with the requirements of the Worker Protection Standard, follow the instructions or requirements on the labeling.

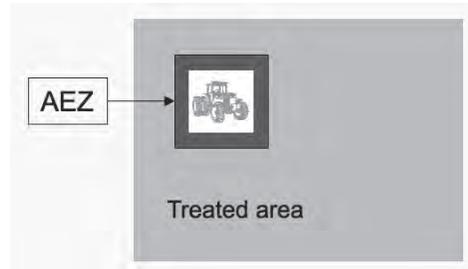
Effective January 2, 2018:

- *Handlers must suspend pesticide applications if any person enters or is in the AEZ.*

Measure the AEZ starting from each dispersion point or nozzle on the pesticide application equipment and extend horizontally in all directions.

Measuring the application exclusion zone (AEZ)

Measure the AEZ from the application equipment horizontally in all directions. The AEZ moves with the application equipment like a halo around the application equipment. **Once the application is over, the AEZ does not exist.**



Size of the application exclusion zone (AEZ)

The size of the AEZ is determined by the application method and spray quality.

Spray quality (defined by the American Society of Agricultural and Biological Engineers Standard S-572.1) considers several factors including the nozzle design, system pressure, and speed of the application equipment. The eight spray quality categories (referenced in nozzle charts) include:

- Smaller than medium:
 - Extra fine (XF)
 - Very fine (VF)
 - Fine (F)
- Medium or larger:
 - Medium (M)
 - Coarse (C)
 - Very coarse (VC)
 - Extra coarse (XC)
 - Ultra coarse (UC)

The AEZ must be a minimum of 100 feet when the pesticide is applied:

- By air (fixed wing or helicopter),
- By air blast,
- As a spray using a spray quality smaller than medium (i.e., fine, very fine or extra fine), or
- As a fumigant, smoke, mist, or fog.

Situations where no AEZ is required include applications of granular pesticides, soil-incorporated pesticides (not fumigants); pre-plant, at-plant, and spot-spray pesticide applications as long as they are less than 12 inches from the soil and use a medium or larger spray quality.

The AEZ must be a minimum of 25 feet when the pesticide is:

- NOT applied in a manner that would require a 100 foot AEZ, and
- Sprayed from a height of greater than 12 inches from the planting medium (soil) using a spray quality of medium or larger (i.e., medium, coarse, very coarse, extra coarse and ultra-coarse).

No AEZ is required when the pesticide is applied in a manner other than those covered above (i.e., less than 12 inches from the soil with medium or larger spray quality).

Entry restrictions - enclosed space production

Enclosed space production pesticide applications also have precautions and restrictions during applications of WPS-labeled pesticide products.

During pesticide applications in enclosed space production areas, the agricultural employer must not allow or direct any worker or other person, other than an appropriately trained and equipped handler involved in the application, to enter or to remain in specific areas for specified times and/or conditions. 170.405(b)(1)

The following table (Table 1. Entry Restrictions During Enclosed Space Production Pesticide Applications) identifies the entry restrictions when applying pesticides for enclosed space production to ensure workers and other persons are not exposed to the pesticide(s) being applied. The restrictions depend on the types of pesticides or application methods used.

Table 1. Entry Restrictions During Enclosed Space Production Pesticide Applications (ventilation criteria)

A. When a pesticide is applied:	B. Workers and other persons, other than appropriately trained and equipped handlers, are prohibited in:	C. Until:	D. After the expiration of time specified in column C, the area subject to the restricted-entry interval is:
(1) As a fumigant.	Entire enclosed space plus any adjacent structure or area that cannot be sealed off from the treated area.	*The ventilation criteria are met.	No post-application entry restrictions required after criteria in column C are met.
(2) As a smoke, mist, or fog, or as a spray using a spray quality of smaller than medium.	Entire enclosed space.	*The ventilation criteria are met.	Entire enclosed space.
(3) Not as in (1) or (2), and for which a respirator is required for application by the pesticide product labeling.	Entire enclosed space.	*The ventilation criteria are met.	Treated area.
(4) Not as in (1), (2) or (3), and: <ul style="list-style-type: none"> • from a height of greater than 12 inches from the planting medium, or • as a spray using a spray quality of medium or larger. 	Treated area plus 25 feet in all directions of the treated area, but not outside the enclosed space.	Application is complete.	Treated area.
(5) Otherwise.	Treated area.	Application is complete.	Treated area.

* When column C of the Table specifies that ventilation criteria must be met, ventilation must continue until the air concentration is measured to be equal to or less than the inhalation exposure level required by the labeling. If no inhalation exposure level is listed on the labeling, ventilation is complete when one of the following conditions is met:

- i. Ten air exchanges are completed.
- ii. Two hours of ventilation using fans or other mechanical ventilating systems.
- iii. Four hours of ventilation using vents, windows, or other passive ventilation.
- iv. Eleven hours with no ventilation followed by one hour of mechanical ventilation.
- v. Eleven hours with no ventilation followed by two hours of passive ventilation.
- vi. Twenty-four hours with no ventilation.

Measuring air exchanges requires specific equipment. If you do not have that equipment, rely on other options based on time, mechanical ventilation (such as fans) and/or passive ventilation.