

I: Rice Conditions

Seepage Mitigation Requirements

For purposes of mitigating seepage in rice production:

Seepage is lateral movement of irrigation water through a rice field levee or border to an area outside the normally flooded production area. Seepage can occur through levees into adjacent dry fields or into adjacent drains and canals.

Any visible seepage moving offsite during the water-holding period that drains into the waters of the State is considered an early release and is a water-holding violation.

Please refer to the brochure, *Seepage Water Management, Voluntary Guidelines for Good Stewardship in Rice Production*, Publication 21568, for suggested management practices.

Malathion

It is recommended that all water from fields treated with pesticides containing malathion be retained on the site of application or contained within a tailwater recovery system, or other system, adequate to prevent discharge to waters of the State for at least four days following application.

General Water-Holding

The following seepage control requirements apply to all rice pesticides having mandatory water-holding requirements such as molinate, thiobencarb, etc. Non-compliance with seepage requirements is considered a water-holding violation.

- A. Rice pesticides, such as molinate and thiobencarb, shall not be applied to rice fields exhibiting visible water seepage that moves offsite into drains that are considered state waters.
- B. Borders surrounding each rice field shall be compacted before water is allowed to fill the field; the degree of compaction shall be sufficient to prevent water from seeping through the border. For example, compaction may be achieved by driving the tires or tracks of a tractor, or other heavy vehicle, on one side of the border.
- C. This requirement applies to new or reworked existing borders for the current rice season.
- D. A common border between two existing rice fields does not need to be compacted.

Methyl Parathion

No aerial application of liquid formulations of methyl parathion shall be made to rice within 300 feet of any agricultural drain unless there is a continuous positive air flow away from the drain.

Water shall not be discharged to waters of the State from sites treated with methyl parathion for at least 24 days following application.

Molinate

Water Management

Except as listed below, all water from fields treated with products containing molinate must be retained on the site of application for at least 28 days following application. When drainage begins, discharge must not exceed two inches of water over a drain box weir for seven additional days. Unregulated discharges from these fields may then start after 35 days.

For water contained within a tailwater recovery system, ponded on fallow land, or contained in other systems adequate to prevent discharge, the following applies:

1. If the system is under the control of one permittee, water may be discharged from the application site in a manner consistent with product labeling (four-day water-hold period).
2. If the system includes drainage from more than one permittee, water must be retained on the application site for at least eight days before water may be discharged from the application site into the system.
3. If water is from acreage within the bounds of areas that discharge “negligible amounts” of rice field drainage into perennial streams until fields are drained for harvest, all water on fields treated with molinate must be retained on the treated acreage for 12 days following application.
4. If water is from acreage treated with a pre-flood application of molinate, the label restrictions apply (four-day water-hold period).

Emergency release requirements (Weather-related)

1. The county agricultural commissioner may authorize the emergency release of tailwater after a minimum 11-day water-hold period, following a review of a written request (Form A), which clearly demonstrates the crop is suffering because of the water management requirements.
2. All water management requirements must be followed that are associated with other pesticides that may have been applied to the site. Additionally, the requester must describe preventative action that would avoid the need for future emergency releases.
3. Under an emergency release variance, tailwater may be released only to the extent necessary to mitigate the documented problem.
4. Those issued an emergency release must submit to the county agricultural commissioner a report (Form B) indicating the time and duration of the emergency release and data that can be used to calculate the total volume of water released during the emergency release.
5. Emergency release will only be granted for reasons related to rainfall, high winds, or other extreme weather conditions that cannot be moderated with management practices.

Emergency release requirements (Salinity damage)

1. The county agricultural commissioner may authorize the emergency release of field water after a minimum 11-day water-hold period, following the review of a written application that demonstrates salinity levels are damaging to the crop.
2. Applicants for such emergency releases must provide the following information:
 - (a) All information indicated on the emergency release request form (Form A), including a description of the severity and extent of salinity damage.
 - (b) Electrical conductivity (EC) measurements expressed as deciSiemens per meter (dS/m) or microSiemens per centimeter ($\mu\text{S}/\text{cm}$), from field water in each paddy suspected of having salinity problems. To most effectively demonstrate salinity problems,

- measurements should be taken wherever salinity problems are evident.
- (c) The instrument (make and model) used to determine EC measurements. The instrument must have a sensitivity range that accommodates the full range of EC values in intake and paddy water (usually a range of 0-5.0 dS/m or 0-5,000 μ S/cm should be sufficient) and should have a resolution of not less than five percent. The instrument must be calibrated according to the manufacturer's instructions. The applicant must specify the method of temperature compensation (i.e., automatic, conversion table).
 - (d) Who made the EC measurements.
 - (e) The source of irrigation water (e.g., district supply canal, drainage canal, well, etc.).
3. An emergency release may be granted only if all of the following conditions are satisfied:
- (a) All required information is provided.
 - (b) Water management requirements for rice pesticides, other than molinate, are satisfied.
 - (c) EC of paddy water exceeds 2.0 dS/m or 2,000 μ S/cm.
 - (d) The county agricultural commissioner or his/her staff inspects the site.
 - (e) Water may be released from paddies where EC measurements exceed 2.0 dS/m or 2,000 μ S/cm and from paddies down gradient from such paddies within the same field. Water shall only be released in an amount necessary to mitigate the salinity problem.
 - (f) Those issued an emergency release must submit to the county agricultural commissioner a report (Form B) indicating the time and duration of the emergency release and data that can be used to calculate the total volume of water released during the emergency release.

Worker Safety

The following are the Worker Safety Permit Conditions for Molinate (Ordram®).

General Requirements

A. Personal Protective Equipment

1. Coveralls are specifically required by these molinate (Ordram®) permit conditions as:
 - (a) Personal protective equipment (PPE) for handling activities in addition to the PPE requirements on the Ordram® 15-GM, and Ordram® 8-E labels.
 - (b) These permit conditions specify that references to a long-sleeved shirt and long pants herein, and on the Ordram® 15-GM, and Ordram® 8-E product labels, shall be interpreted to mean garments meeting the definition of coveralls.
2. Protective apparel (coverall or garment) combinations:
 - (a) A coverall or garments defined as a "coverall" in 3CCR section 6000, UNDER a disposable coverall made of a synthetic material capable of excluding particles 45 microns or larger in diameter, such as Tyvek Q®, KLEENGUARD®, polypropylene, or other brands of coverall material approved by DPR, Worker Health and Safety Branch;
OR
 - (b) A full-body cloth suit (long-sleeved and long-legged) impregnated with activated charcoal UNDER a coverall or garments defined as a "coverall" in 3CCR section 6000;
OR
 - (c) A coverall or garments defined as a "coverall" in 3CCR section 6000, UNDER a chemical resistant coverall as specified in 3CCR section 6738(g)(1). Examples of a chemical resistant coverall are rain suits, Tyvek QC®, Tyvek® laminated with SARANEX®, polypropylene laminated with polyethylene, or other brands of coverall

approved as chemical resistant by the DPR, Worker Health and Safety Branch.

B. Granular Formulation: Requirements for **aerial or ground** application handlers who **will come into contact with** Ordram® 15-GM product.

1. Bag Handling Requirements

- (a) No person shall load more than 152,000 pounds of Ordram® 15-GM per season.
- (b) The employer shall maintain a record of persons loading Ordram® 15-GM and make these records available for inspection by the county agricultural commissioner or the Director, upon request. Records shall be kept as follows:
 1. Name of person(s).
 2. The date and total pounds of Ordram® 15-GM loaded per day.

2. Loaders or any persons having contact with or handling full, partial, or empty Ordram® 15-GM bags shall wear the following PPE (apparel and devices) in addition to PPE required by the Ordram® 15-GM labeling:

- (a) A full-face respirator with either cartridge(s) approved for organic vapors with a dust/mist prefilter approved for pesticides, or a canister approved for pesticides approved by the National Institute for Occupational Safety and Health (NIOSH) and/or Mine Safety and Health Administration (MSHA).
- (b) A tightly woven head covering.

3. Flaggers **NOT working in an enclosed cab/vehicle** shall wear the following PPE (apparel and devices) in addition to PPE required by the Ordram® 15-GM labeling:

- (a) Protective eyewear (safety glasses). [Reference: 3CCR section 6738(b)(1)(E)]
- (b) A tightly woven head covering.

4. Flaggers **working in an enclosed cab/vehicle** shall wear the following PPE (apparel and devices) in addition to PPE required by the Ordram® 15-GM labeling:

- (a) Protective eyewear.
- (b) The PPE required above in this section for flaggers shall be worn in addition to PPE required by the Ordram® 15-GM labeling when performing flagging activities outside of the enclosed cab/vehicle. [Reference: 3CCR section 6738(i)(7)]

C. Granular Formulation: Requirements for **aerial or ground** application handlers **not involved** in mixing or loading Ordram® 15-GM product.

1. Pilots shall wear the following PPE (apparel and devices) in addition to PPE required by the Ordram® 15-GM labeling:

- (a) Pilots involved in loading or equivalent activities (load leveling, washing windshields, handling the bucket sock, etc.) where they may come into contact with Ordram® 15-GM, shall wear the same PPE (apparel and devices) required for loaders in section I B.2 of these molinate (Ordram®) worker safety permit conditions.

2. Ground applicators **NOT** involved in mixing or loading Ordram® 15-GM, **NOT** having contact with or handling full, partial, or empty Ordram® 10-G and/or Ordram® 15-GM bags, and **NOT working in an enclosed cab** shall wear the following PPE (apparel and devices) in addition to PPE required by the Ordram® 15-GM labeling:

- (a) A coverall or garments defined as a “coverall” in 3CCR section 6000, UNDER either a cloth coverall or a disposable coverall made of synthetic materials capable of excluding particles 45 microns or larger in diameter, such as Tyvek Q®, KLEENGUARD®, polypropylene, or other brands of coverall approved by the DPR, Worker Health and Safety Branch.
- (b) A NIOSH and/or MSHA approved full-face respirator with either cartridges(s) approved

for organic vapors with a dust/mist prefilter approved for pesticides or a canister approved for pesticides.

(c) A tightly woven head covering.

3. Ground applicators **NOT** involved in mixing or loading Ordram® 15-GM, **NOT** having contact with or handling full, partial, or empty Ordram® 15-GM bags, and **working in an enclosed cab** shall wear the following PPE (apparel and devices) in addition to PPE required by the Ordram® 15-GM labeling:

(a) A NIOSH and/or MSHA approved half-face respirator with either cartridges(s) approved for organic vapors with a dust/mist prefilter approved for pesticides or a canister approved for pesticides must be worn.

(b) The PPE (apparel and devices) required above in this section for ground applicators and PPE required by the Ordram® 15-GM labeling shall be worn if it is necessary to exit the enclosed cab and contact pesticide treated or contaminated surfaces.

D. Liquid Formulation: Handling Requirements

1. Mixers and loaders who **will come in contact with** Ordram® 8-E product shall wear the following PPE (apparel and devices) in addition to PPE required by the Ordram® 8-E labeling:

(a) A NIOSH and/or MSHA approved full-face respirator with either cartridge(s) approved for organic vapors with a prefilter approved for pesticides or a canister approved for pesticides.

(b) A tightly woven head covering.

2. Applicators who **will come in contact with** Ordram® 8-E product shall wear the following PPE (apparel and devices) in addition to PPE required by the Ordram® 8-E labeling:

(a) A coverall, or garments defined as a “coverall” in 3CCR section 6000, UNDER a chemical resistant coverall as specified in 3CCR section 6738(g)(1) such as rain suits, Tyvek QC®, Tyvek® laminated with SARANEX®, polypropylene laminated with polyethylene, or other brands of coverall approved as chemical resistant by the DPR, Worker Health and Safety Branch.

(b) A NIOSH and/or MSHA approved full-face respirator with either cartridges(s) approved for organic vapors with a prefilter approved for pesticides or a canister approved for pesticides.

(c) A tightly woven head covering.

3. Applicators **NOT** involved in mixing or loading Ordram® 8-E and **working in an enclosed cab** shall wear the following PPE (apparel and devices) in addition to PPE required by the Ordram® 8-E labeling:

(a) A NIOSH and/or MSHA approved half-face respirator with either cartridges(s) approved for organic vapors with a prefilter approved for pesticides or a canister approved for pesticides must be worn unless the applicator is working in an enclosed cab acceptable for respiratory protection.