

# Module 4

## Soil Fumigant RED Requirements

# Good Agricultural Practices (GAPs)

# What are GAPs?

- Application Practices that:
  - Improve safety & efficacy
  - May be generic or specific to application method, chemical
- Developed by registrants, growers, applicators, and EPA
- Many already on labels
- Must document in Fumigant Management Plan and/or Post Application Summary to show compliance

# Why have GAPs?

- Ensure that all applicators follow the same standards
- Reduce potential for:
  - bystander & handler exposure to emissions from soil fumigants
  - accidents
- Improve efficacy of soil fumigation

# Label Statements

*“The following GAPs must be followed during all fumigant applications.”*

*“All measurements and documentation to ensure the mandatory GAPs are achieved must be recorded in the FMP and/or the post-application summary.”*

# Examples of Generic GAPs



## Soil moisture

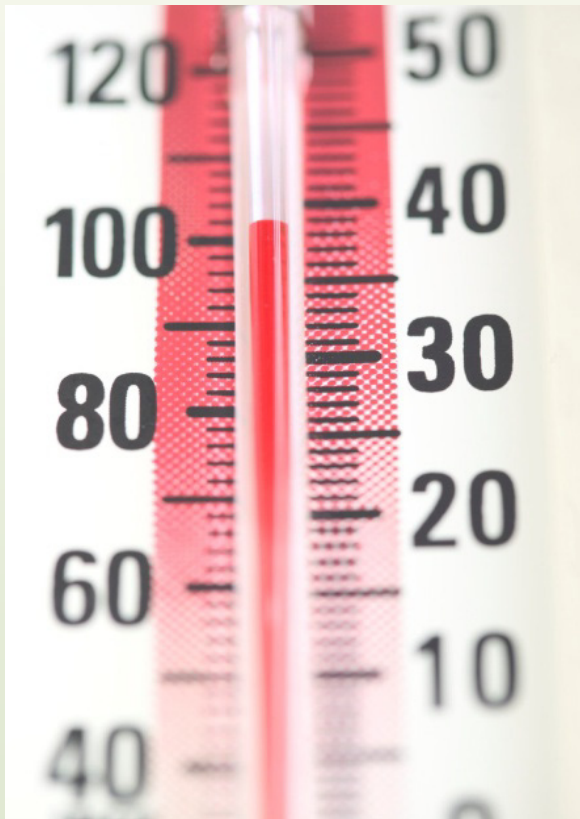
- Appropriate for soil type
- Determined using USDA's Feel and Appearance method or an instrument



## Soil preparation

- good tilth
- free of large clods
- crop residue  
(if present) must not interfere with soil seal

# Another Example of a Generic GAP



## Soil temperature

- Maximum soil temperature is 90 degrees F
- Depth of soil temperature measurement varies

# Example of Application Method-Specific GAP

## Tree Replant

- Before Application
  - Remove
    - *Tree stump*
    - *Primary root system*
    - *Backfill the hole with soil*
- After Application
  - Cover with soil and tamp, or
  - Compact soil



# Example of Chemical-Specific GAP

## Methyl Bromide

- Hot gas outdoor applications
  - Introduce fumigant from outside application block
  - Tarps must be used
  - Fumigant delivery tubes must be under tarps
  - Fittings, connections, and valves must be checked for leaks





# Other GAPs

- Soil seal
- Calibrate, maintain, and clean equipment
- Prevent end-row spillage

# Review Questions

## *True or False?*

### *GAPs...*

1. ...were developed solely by EPA.
2. ...will be mandatory on new labels.
3. ...must be recorded only in the Fumigant Management Plan.
4. ...are identical for all soil fumigants.

# Summary

## Good Agricultural Practices:

- Minimize exposure from emissions
- Increase safety and efficacy of applications
- May be generic, or specific to a chemical or application method
- Many on labels as recommendations, more will be mandatory
- Must be documented in FMPs and/or post-application summaries

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