

Weather & Pesticides I Quiz - Yes or No

1. Pest life cycles can be predicted based on weather data, including Growing Degree Days.
2. It is best to apply pesticides in low humidity (below 45% RH) to avoid drift.
3. Herbicides applied at 80°F air temperature may volatilize.
4. Calm winds and noises heard for miles indicate favorable spraying.
5. If you need full pesticide coverage of a plant, drift-resistant fan nozzles provide this.
6. Pesticides which are applied to soil may require rain or irrigation.
7. There are no adjustments possible to allow for pesticide application in extremely wet weather (> 4 inches).
8. Weather data measurements only need to be taken prior to pesticide applications to determine if there is suitable weather.
9. Vapor drift can be reduced by adding sand to the soil.
10. A simple hand-held weather station is generally more accurate than Radio, TV, Web Site and Airport weather reports.
11. The Beaufort scale is accurate for spray decisions.
12. Relative humidity is the best measure for moisture in air.
13. Inversions result from stable atmospheric conditions.
14. Weather conditions are increasingly more severe every year.
15. Someone who is suffering from heat exhaustion will have dilated pupils.

Quiz based on questions from the Understanding Weather Issues Core Pesticide Update I, by Linda S. Wiles, Penn State Extension, July 10, 2007

Weather & Pesticides I Quiz - Yes or No

1. Pest life cycles can be predicted based on weather data, including Growing Degree Days.

Yes.

2. It is best to apply pesticides in low humidity (below 45% RH) to avoid drift.

No. Both low and high humidity can result in drift.

3. Herbicides applied at 80°F air temperature may volatilize.

Yes. Ground temperatures where the pesticide lands may be much higher than the air temperature, usually measured at about 4 feet.

4. Calm winds and noises heard for miles indicate favorable spraying.

No. These are two indications of air inversions.

5. If you need full pesticide coverage of a plant, drift-resistant fan nozzles provide this.

No. Drift-resistant nozzles are designed for only limited coverage in order to control drift.

6. Pesticides which are applied to soil may require rain or irrigation.

Yes. For example, many grub control products require watering-in to be activated.

7. There are no adjustments possible to allow for pesticide application in extremely wet weather (> 4 inches).

No. Pesticide applications can and should be adjusted when sprays are necessary under these conditions.

8. Weather data measurements only need to be taken prior to pesticide applications to determine if there is suitable weather.

No. They should also be taken during and after application to verify any problems, including possible need to reapply.

9. Vapor drift can be reduced by adding sand to the soil.

No. Coarser soils are more likely to have vapor drift. Amending soil to increase fine to medium particles will reduce vapor drift.

10. A simple hand-held weather station is generally more accurate than Radio, TV, Web Site and Airport weather reports.

Yes. It considers local topography and can be measured at the same, or similar, height as the spray application. Others are measured at about 30 feet or 10 meters.

11. The Beaufort scale is accurate for spray decisions.

No. It requires practice, knowledge of how specific plants behave at different wind speeds, and is especially difficult at the marginal spray conditions.

12. Relative humidity is the best measure for moisture in air.

No. dewpoint, which is an absolute, not relative measure, is better, and provides closer to "Real Feel" at higher temperatures.

13. Inversions result from stable atmospheric conditions.

Yes. Air naturally mixes, when it doesn't then you have smog, spray drift, etc.

14. Weather conditions are increasingly more severe every year.

Yes and No - the overall pattern over 5 year intervals is, while that over single years is variable.

15. Someone who is suffering from heat exhaustion will have dilated pupils.

Yes. Moist membranes, salivation, tears and possibly small pupils are symptoms of pesticide poisoning.

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