

EXERCISE # 6**ABIOTIC STRESSES IN PLANTS**

"Abiotic" literally means without life. Abiotic plant disorders are non-biological factors, usually associated with the plant's environment that affect plants adversely.

1. The environmental factors include temperature, moisture, soil pH, air quality, light regime, and nutrition.
2. If one or more of these factors go above or below the optimum range for a given plant species, plant growth might be abnormal or adversely affected.
3. Abiotic disorders may also be caused by human activities, such as pesticide and fertilizer applications.
4. One important indicator of an abiotic cause for a plant health problem is the distribution of the damage within the environmental unit. Plants generally grow in distinct environmental units such as vegetable gardens. Environmental problems are much more likely to affect most plants in the environmental unit uniformly.
5. Disease and insect problems, on the other hand, tend to occur in clumps or hot spots within the unit, especially early in outbreaks. For example, if frost injury occurs in a vegetable garden, all vegetable plants are likely to have blackened leaves.
6. A fungal pathogen, in contrast, may produce similar dark discoloration, but only on one or two plants in the early stages of the epidemic.

