Plant Hormones in Plant Propagation
Review Questions-Dr. Fred Davies part 1

1. Typically, where are hormone receptors?
Hormone receptors are typically on a membrane system.

2. How do auxins and cytokinins differ in their use in horticulture?
Auxins are widely used in horticulture for stimulating rooting of cuttings. Cytokinins are used for adventitious bud formation of cuttings, and in tissue culture systems.

3. What are the two most important auxins used in horticulture and why are they favored?
NAA and IBA are the most important auxins commercially because they are stable (they do not break down in light) and have a very good response.

4. Is it better to use higher or lower concentrations of auxin, and why?
When using higher concentrations of auxin, irregular rooting can occur, so lower concentrations are preferred.

5. What happens if you use too high of a cytokinin concentration?
If you use too high of a concentration of cytokinin or leave the leaf in it for too long, many buds could form and you will never get good shoot formation.

6. How are gibberellins used in horticulture?
Gibberellins are used in breaking seed dormancy. It is an environmental cue for the seed to produce more GA and overcome its internal dormancy response.

7. What is the function of ABA in a plant?
Roots are able to perceive less water in the soil. They produce ABA and translocate it through the xylem to the guard cells, which control the stomata. Stomata close to prevent the plant from desiccating (drying out).

8. What is B-9 used for in plant production?
B-9 (Alar) is used in height control of plants.