

## **STUDY GUIDE for "Acid Precipitation, Implications For Forest Productivity"**

- 1) What is acid rain and what causes it?
- 2) List the detrimental effects of acid rain on aquatic ecosystems:
- 3) What is the average pH of precipitation falling in PA?
- 4) Which are affected most by acid rain, deciduous leaves or coniferous needles?
- 5) What is acid rain's greatest effect on leaves?
- 6) Why are nutrients leached from leaves by acid rain lost to the forest ecosystem?
- 7) How is the process of leaf litter decomposition in a forest affected by acid rain and why may this be detrimental to the growth of trees in a forest?
- 8) What negative effects may result from the breakdown of the cutin (waxy) layer of leaves by acid rain?
- 9) How is seed germination affected by acid rain?
- 10) What are mycorrhizae? How are they important to trees? How are mycorrhizae affected by acid rain?
- 11) What is aluminum toxicity and how does it relate to acid rain in forests?