

Lawn chemicals

Do homeowners contribute to the problems associated with over-fertilizing?

Try this experiment using lawn spreaders and bird seed instead of fertilizer. Use fertilizer labels from consumer products to simulate directions for fertilizer use in your schoolyard.

Materials

- Lawn spreaders-drop and broadcast
- Tarp or drop-cloth
- Bird seed with a uniform seed size to simulate fertilizer

Instructions

1. Design a controlled experiment to test the efficiency of lawn spreaders.
2. Students may use a tarp of a known size or measure out an area.
3. Determine the amount of “fertilizer” needed, the rate of application, and the speed of the “applicator.”
4. Test the method by applying “fertilizer” and determine the limitations to the accuracy of their method.
5. After testing their method, have students discuss the problems with these fertilizers spreaders and common practices of homeowners or users.
6. Have students create and shoot a video about fertilizer application misconceptions and/or best practices. Encourage students to design an educational program to help homeowners understand how over fertilizing their yards can contribute to soil run off and water quality problems. (i.e. informational videos, brochures, social media campaign, etc.)

Reflection

1. What might encourage a homeowner to over-fertilize his/her lawn?
2. What might keep a homeowner from over-fertilizing his/her lawn?
3. What might encourage a farmer to over-fertilize his/her fields?
4. What might keep a farmer from over-fertilizing his/her fields?