



On-Farm Leaf Mulching: Getting Started

Daniel Kluchinski, Mercer County Agricultural Agent

Leaf mulching is the application and incorporation of collected municipal leaves on agricultural land. This disposal/utilization practice provides an alternative to land-filling, local burning, and central incineration of leaves. In addition, it can be an option for municipalities with composting facilities that have problems regarding odor, site management, limited space, or labor availability.

For farmers, leaf mulching can provide a desirable source of organic material for soil improvement and often additional income through tipping fees paid by the municipality. Through leaf mulching, agriculture can help to solve a waste-management problem that affects all of society by using a technique that improves on-farm income, reduces disposal costs, and increases productivity of farms. If you are interested in starting an on-farm leaf mulching operation, these steps should be followed to ensure success:

- 1.** Contact your county solid waste or recycling office to determine what permitting or approval process is required. Review Rutgers Cooperative Extension fact sheet FS718, "On-Farm Use of Leaves: Regulations." Approvals may take several months, so plan accordingly.
- 2.** Ask county or state officials about municipalities that are looking for farmers to accept leaves, or contact potential leaf sources directly.

Ask any supplier if an agreement or contract stating the specific terms of the agreement can be made. Consider the following factors:

- length of agreement
- time when leaves will be delivered
- amount of leaves to be delivered
- tipping fee (dollars per cubic yard or ton of leaves) to be received
- site or sites where leaves are to be unloaded
- delivery schedule
- acceptable quality standards/conditions upon which loads can be rejected
- responsibility for removal of nonbiodegradables and other trash
- responsibility for damage to fields from delivery trucks
- methods for dispute arbitration

3. Educate municipal officials or leaf suppliers about your farm operation. Explain why farm fields should not be driven on, or how bottles or trash can break equipment or injure animals. Explain that their "waste" is an "asset" to you, and therefore the material must be collected, handled, and delivered properly to ensure quality.

4. Ask municipal officials to educate the public about on-farm leaf mulching and the need to keep leaves clean and uncontaminated by bottles, cans, motor oil, or other materials.



5. Initially, consider accepting small quantities of leaves or operating on a limited acreage. Have an all-weather road for truck traffic and a site for unloading. Remember that leaf deliveries will quickly “add up,” especially if wet or freezing weather delays spreading. Spreading and incorporation techniques and equipment should be tested to see which work best for you.

6. Have written contingency plans should problems arise. For example, if odors become a problem with stockpiled leaves, will you apply limestone to neutralize odors? Move the material off-site? Spread it immediately? What will happen if your spreading equipment breaks down and you cannot spread the material in a timely manner? Will you spread it by a different method? Be able to stop deliveries until the equipment is repaired?

7. Calibrate your spreading equipment and application rates. Make sure application rates follow state regulations or nutrient management plans, if required.

8. Remember to consider how increased moisture retention, increased surface residue, or extended periods of lower soil temperatures in early spring may affect planting or crop establishment.

9. Experiment with different crops, seeding rates, or nitrogen fertilizer rates. Consider legumes or low-nitrogen-use crops immediately after incorporating leaves, or transplants versus direct seeding.

10. Keep good records of leaf deliveries, application rates, spreading and incorporation methods, cropping practices, crop vigor, and yields. These records will help you to determine the effects of the practice. In addition, they can be used to illustrate your successful use of the practice should problems arise, such as local opposition to or inspection of your operation.

These 10 guidelines should help you prepare to start on-farm leaf mulching. Obviously, the success of such an operation depends on a good plan and proper execution. For additional information, contact your local Rutgers Cooperative Extension office; municipal, county, or state solid waste management office; or other operators of on-farm leaf mulching sites. Also available are RCE fact sheets FS718, On-Farm Use of Leaves: Regulations; FS821, On-Farm Leaf Mulching: Leaf Application, Incorporation, and Economics; FS822, On-Farm Leaf Mulching: Effects on Soils, Crop Yield, and Pests; and FS824, Plant Nutrients in Municipal Leaves.

© 2004 by Rutgers Cooperative Research & Extension, NJAES, Rutgers, The State University of New Jersey.

Desktop publishing by Rutgers-Cook College Resource Center

Revised: March 1996

**RUTGERS COOPERATIVE RESEARCH & EXTENSION
N.J. AGRICULTURAL EXPERIMENT STATION
RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY
NEW BRUNSWICK**

Distributed in cooperation with U.S. Department of Agriculture in furtherance of the Acts of Congress on May 8 and June 30, 1914. Rutgers Cooperative Extension works in agriculture, family and community health sciences, and 4-H youth development. Dr. Karyn Malinowski, Director of Extension. Rutgers Cooperative Research & Extension provides information and educational services to all people without regard to race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Rutgers Cooperative Research & Extension is an Equal Opportunity Program Provider and Employer.