Q: Why is coring supposed to be better than spiking to relieve compaction? Both techniques provide a channel for better air exchange and water penetration.

A: An ideal soil contains 50 percent pore space which allows for proper penetration and availability of air and water. When a soil becomes compacted, the particles are pressed closer together reducing the pore space, and in effect creating a situation where the soil contains too much particulate matter and not enough space.

To relieve compaction, then, you should remove some of the soil matter which can be accomplished by coring. Spiking, however, does not remove any soil but simply rearranges it. In fact, spiking can aggravate compacted soils by causing additional compaction around the edges of the hole.

Q: What is LB urea? Can it be used to fertilize turf?

A: "LB" is commonly defined as urea with less than 0.25% biuret. It can be used for either foliar or soil fertilization of turfgrasses.

Q: How can you control crabgrass in dichondra?

A: Betasan (Bensulide) can be used for preemergent control of crabgrass on seedling or established dichondra.

Q: Will insecticides in a lawn application kill slugs?

A: Liquid fertilizers might desiccate slugs but I am not aware of any insecticide effect. The standard recommendation is metaldehyde/Mesurol bait or a shallow (¾-inch) pan of beer placed in areas of high feeding activity.

Q: How large should the soil ball on a 15-foot hemlock be?

A: According to the American Standard for Nursery Stock, the diameter of the ball of a 14 to 16-foot pyramidal evergreen should be 42 inches and the depth should be not less than 60 percent of the width. The American Standard for Nursery Stock is published by American Association of Nurserymen, 230 Southern Building, Washington, DC 20005.

Q: Can St. Augustine be hydro-sprigged with a Bowie 350 machine?

A: Because of limited and inconsistent success, it is not recommended that St. Augustine be vegetatively established by the hydromulch process.

Q: Is it possible that a low seeding rate—one pound per 1,000 square feet—is successful? What would be a suitable rate for a mixture in New England?

A: The seeding rate would depend upon the turfgrass species included in the blend or mixture as well as seed viability, establishment procedures, and environmental conditions.

In general, Kentucky bluegrass blends are seeded at a rate of 1 to 2 pounds per 1,000 square feet, although certain of the new improved cultivars have been established successfully at rates as low as 0.5 pounds per 1,000 square feet.

Seeding rates for other cool-season turfgrasses are listed below:

<table>
<thead>
<tr>
<th>Species</th>
<th>Seeding rate (Lbs./1,000 sq. ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>red fescue</td>
<td>3-4</td>
</tr>
<tr>
<td>tall fescue</td>
<td>7-9</td>
</tr>
<tr>
<td>perennial ryegrass</td>
<td>7-9</td>
</tr>
<tr>
<td>bentgrass</td>
<td>0.5-1</td>
</tr>
</tbody>
</table>

The proper seeding rate for mixtures of two or more species is determined by the ratio or percent of each species in the mixture.

Q: In attempting to establish centipede grass from seed, what is the best method to control crabgrass? Since centipede takes several weeks of constant moisture for germination, the crabgrass gets a tremendous head start, thus inhibiting the centipede grass.

A: The best method of crabgrass control when establishing centipede grass from seed is to fumigate prior to seeding. Pre-emergent herbicides cannot be used until the grass becomes established, by which time crabgrass has also become established. There are no post-emergents currently labeled although Metribuzin (Sencor—registered trade name of Mobay Chemical Corp.) has given favorable results in research tests.

An alternative would be to establish centipede grass vegetatively and follow immediately with an application of Atrazine (AAtrex—registered trade name of Ciba-Geigy Corp.).

Q: Residents surrounding a lake were questioning one of my employees about whether or not our lawn service could cause eutrophication. What is your opinion?

A: Eutrophication is a condition in stagnant ponds characterized by a dense growth of plant life, the decay of which depletes the shallow waters of oxygen in the summer.

Except in a few isolated cases, there is no evidence that fertilizers are a major cause of eutrophication. In fact, studies have shown that in areas where severe water pollution exists, the removal of all fertilizer nitrogen and phosphorus would not prevent eutrophication.