

# ASK THE EXPERT

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## Anticipating droughty conditions

**Problem:** If we experience another water shortage this summer, I'm sure restrictions will be imposed. Are there any products that will stretch our rainwater and help alleviate the stress which will be placed on our lawns and trees? (The first thing I read is your informative column—keep up the good work.) (New York)

**Solution:** The past several years, many parts of the country experienced extended periods of dry weather, leading to drought-related problems of established turf and plants.

Reports indicate that proper fertilization, preferably prior to drought but also during or after, helps promote deeper and healthier grass and tree roots. Potassium in the fertilization program will help develop thicker cell walls and make plants more drought hardy. Consider providing proper fertilization to improve overall plant health.

Other cultural practices such as mulching for trees helps maintain soil moisture and prevents weed establishment.

If the soil is compacted, consider aerification to promote better rooting and infiltration of water and fertilizer.

Water trees infrequently and deeply. Generally, for most clay types of soils, two inches of water per week is sufficient to wet the top 12 inches of soil. For sandy soils, watering twice a week should be sufficient. Since most of the active roots are in the top 12 to 18 inches, this will help maintain good root growth.

The soil may repel water if it is very dry (hydrophobic). In this situation, an application of dishwashing (soapy) water or a commercial wetting agent such as Aquagro would be beneficial.

To improve water holding capacity, a number of polyacramide gel products can be used. These should be amended into the soil and can be tried on a small scale if you are not familiar with them. Our experimental results have been variable.

For lawn areas, the same cultural practices are beneficial. During drought periods, use greater proportions of low-burn fertilizer. Water the turf one inch per week for most clay soils and two times a week for sandy soils.

When such watering is not possible, some extension personnel recommend infrequent light watering (synergizing) to keep the turfgrass crown alive. Research information on this is lacking.

Another important factor is mowing. Cut the turfgrass blade at the recommended cutting height. Generally, if in doubt, maintain the cutting height for cool-season grasses at 2½ inches. This will help conserve moisture and improve density, color and greater surface area for photosynthesis.

## Residual activity on insecticides

**Problem:** Where can information be found that gives residual activity time for various insecticides such as Dursban, Sevin, diazinon and malathion? (Michigan)

**Solution:** Residual activity of most of the pesticides can be found in a publication entitled "Pesticide Information Manual," edited by the Northeastern Regional Pesticide Coordinators and published by the Cooperative Extension Service, USDA. For the most up-to-date information, contact the manufacturers of specific pes-

ticides. The residual activity of some of the insecticide available in the green industry is as follows:

Insecticide	Plant surface	Unexposed surface	Soil
diazinon	1 week	2 months	10 days
malathion	1-3 days	2 weeks-1 month	short residual
Dursban	few days	several weeks	9 weeks-1 year
Sevin	2-10 days	3-4 months	3 weeks

## Grass clippings on lawns

**Problem:** The removal and disposal of yard waste in general and grass clippings in particular presents a major problem in the future because of new regulations. I would appreciate your opinion on leaving grass clippings on the lawn. (Ohio)

**Solution:** Reports indicate that many states in the U.S. will have regulations on yard waste, including grass clipping disposal, in the near future. In the past couple of years, a number of articles were written in various magazines regarding these issues (LM, October, 1990). Also, a number of private companies and municipalities are showing interest in dealing with this problem. Contact your city officials and cooperative extension service to find out more about these activities.

Reports suggest that return of clippings over an extended period of time tends to reduce the turfgrass quality under intensive turfgrass culture. Therefore, you may want to consider clipping removal under these conditions. Clippings should be removed when the plates are too long or they have a high potential for disease development.

Turfgrass maintained under a low-intensity fertilizer program can benefit by returning the clippings. These clippings release nitrogen to the soil, which can in turn be used by the turfgrass plant. This would help reduce the total amount of nitrogen needed by the plant. In general, returning the clippings can provide up to one pound of actual nitrogen over a period of one year.

Where feasible, consider using a mower that would shred or mulch the clippings to aid in decomposition.

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*Mail questions to "Ask the Expert," LANDSCAPE MANAGEMENT, 7500 Old Oak Blvd., Cleveland, OH 44130. Please allow two to three months for an answer to appear in the magazine.*