

# EPA rules to establish pesticide management zones

In an effort to strike a balance between the conflicting forces of human health and the agricultural and ornamental use of ground water polluting pesticides, the Environmental Protection Agency (EPA) will soon promulgate new regulations that have the potential of causing a considerable impact on the way turfgrass managers operate.

The new regulations, coming some time this fall, will require all states to follow the lead of California and compile a list of those agriculture and turf pesticides that are believed to be contributing to the contamination of its ground water and well water drinking water supplies. Also, the states will be required to designate pesticide management zones (PMZ) or areas within each state that have been identified as the sources of their drinking water supplies.

Once the lists have been compiled, the pesticides on that list will be considered to have been designated as having a "special prescription status". Pesticide applicators will be allowed to use these prescription status pesticides in the PMZ areas, if they first obtain written permission to use the listed pesticide from a state certified chemical advisor and they agree to the pesticide's use under strict new government regulation. The state certified chemical advisor will be required to clear all of the approvals for prescription status pesticides with that state's Department of Agriculture.

Once these new regulations become effective at the state level, probably no sooner than 1996, the states will be

required to monitor their drinking water supplies for the presents of the listed pesticides. If this new level of regulation does not limit the amount of detected pesticide in tests and it reaches the level which is considered to be hazardous to human health, the state will have no choice but to ban the use of that pesticide in all PMZ areas.

*TGT's view: Turfgrass managers can expect that previously identified ground water contaminating chemicals, such as Atrazine, Simazine, and Bromacil, to be placed on the prescription status lists. In general, any highly soluble chemical that has the potential to pollute drinking water supplies will eventually find their way onto many of the new prescription status lists. Designation to this list would be up to the determination of each state, which the EPA thinks are better prepared to accurately identify offending materials under varying local conditions.*

*Turfgrass managers may well opt not to use prescription listed pesticides in their local PMZ's, as long as there are adequate alternative products. If adequate alternative products or control strategies are not available, then each turfgrass manager should carefully consider time lag to get approvals, added costs of administration, and added levels of regulation before making the decision to use these products. -CS*

Oklahoma and Illinois study

## Clippings increase turf canopy temperatures

Joint research done by Oklahoma State University and the University of Illinois indicate that canopy temperatures increase when clippings are returned to the turfgrass canopy.

The research found that canopy temperatures increased by an average of 1.32 C or 4.5% the day following clipping return and by .36 C or 1.2% on the second day. The mechanism for this increase in canopy temperature was not identified, although it could have been caused either by metabolic activity of microbes decomposing the clippings or by a reduction in the leaf surface area involved in evapotranspiration.

*TGT's view: Turfgrass managers monitoring air and canopy temperatures for peak disease activity may want to add this effect into their calculations. -CS*

## Over \$12.5 billion spent on America's lawns

In a recent Gallup survey, 17 million U.S. households spent \$12.5 billion on professional landscaping and lawn care services in 1993. The study revealed that the number of homeowners using landscape professionals was up 29% over 1992, and is expected to grow by 6% in 1994.

The average 1993 household spending on landscape services was \$721 with the cumulative breakdown being \$6.4 billion for homeowner landscaping, \$5.6 billion for landscape installation or construction, and \$381 million for landscape design. The improved national economy, the upturn in homebuilding, and the growing awareness of landscaping's environmental and economic benefits are believed to be key factors contributing to the growth in homeowner spending on professional landscape services.

The survey was commissioned by seven associations, including the Professional Lawn Care Association of America and the American Association of Nurserymen.

# Tolerance of grasses studied by Japanese

### Ryegrass and tall fescue can tolerate flooding

Research recently conducted in Japan has found that both ryegrasses and tall fescues tolerate prolonged flooding better than bluegrasses.

The research found that the majority of the varieties of the three species tested tolerated prolonged field saturated conditions during the coolest six months of the year, but once temperatures rose the tall fescues showed the least

damage when compared to ryegrasses and bluegrasses.

*TGT's view: Turfgrass managers should consider converting saturated areas over to stands of tall fescue, if correcting drainage or percolation problems is not possible. This research also indicates why tall fescue varieties do well in wet, shaded areas. It is clearly the species that tolerates wet feet better than the other two. -CS*

### Bluegrass best tolerates heat

Research conducted in Japan has identified bluegrasses as tolerating one-day exposure to high day/night temperatures better than either tall fescue or ryegrass.

The experiment subjected six well-watered varieties of each species to the conditioning of moderately high temperatures and high humidity of a growth chamber for three weeks and then exposed them to 24 hours of high heat. The ryegrasses only averaged 67% survival at 36/31 C (97/88 F) and only 4% at 48/43 C (116/106 F) after a day of high temperatures. The tall fescue and bluegrasses tolerated temperatures of 44/39 C (108/98 F) with 90% average

survival rates, with bluegrasses showing 23% average survival rates at 50/45 C (120/110 F) and tall fescue only 8%. When 96% of the ryegrasses were dead at 48/43 C (116/106 F), 51% of the bluegrasses and 39% of the tall fescues still survived.

*TGT's view: In regions where very high heat conditions may spike up for a day or two, turfgrass managers may want to stay away from ryegrasses in critical areas, opting for bluegrasses where possible or tall fescue, where bluegrass management requires too much input. -CS*

## Nine states to give pesticide recertification credits for home study

Nine states — Delaware, Florida, Georgia, Maine, Nebraska, Pennsylvania, Rhode Island, West Virginia and Wyoming — have recognized the home study correspondence course, entitled "The Principles of Turfgrass Management", as having met their recertification training standards. The course was produced through the cooperative efforts of the University of Georgia and the Professional Lawn Care Association of America.

Each state will assign credits to participants as determined by that state's standards. Six additional states — Colorado, Connecticut, Indiana, North Carolina, Oregon, and South Dakota — are reviewing the course to see if it meets their standards.

### Studds' bill

## Would tax pesticide, fertilizer makers

Rep. Gary Studds (D-MA) has introduced a bill, H.R. 2199, as part of the Clean Water Act reauthorization, called the Polluter Pays Bill. The new law would tax pesticide and fertilizer manufacturers to provide revenues for the cleanup of contaminated surface and ground water supplies. Hearings were held before the full Committee on Merchant Marine and Fisheries in March and the Environmental Protection Agency (EPA) has said it may study this bill as way to deal with the existing problem of water pollution. According to committee sources, further legislative action on the Clean Water Act, including the Polluter Pays amendment, is not expected until the 1995 session of Congress.