Elanco is developing specifically for the specialty markets.

Company personnel say that they will probably recommend mixing EL-107 with a dinitroaniline (like pendamethalin or Balan) for sharper grass control. It also controls dandelions and buckhorn.

The product has been shown to work on 90 species of ornamentals for weed control, both alone and in combination with another Elanco product, Surflan.

#### **TECHNOLOGY**

### Plant stress monitor measures turf's health

Standard Oil is testing a plant stress monitor that yields a "stress index" to enable turf managers to more accurately program irrigation needs.

The instrument has been placed in the hands of two golf course superintendents—one in the Cleveland, Ohio area, and one in the Atlanta area—for field trials. If tests are positive, it will be marketed to golf course superintendents and other turf managers.

The monitor, a hand-held "gun" attached to a computer worn at the waist on a should strap, monitors the physiological state of the turf. After measuring the plant's leaf temperature, ambient temperature, relative humidity and solar radiation load, the data is processed by the computer. The resulting "stress index" gives the turf manager information needed to analyze irrigation effectiveness and project irrigation requirements.

"There's still a question as to how we're going to release this product," notes Steve DeSutter of Standard Oil of Ohio. "But we're working on an agreement with one of the major irrigation suppliers to the turf industry."

A specific release date is yet to be determined.

#### **FERTILIZER**

## Lebanon Chemical expands fertilizer line

With the purchase of Tidewater Agricorp Inc. of Chesapeake, Va., Lebanon Chemical Corp. significantly expands its liquid fertilizer line.

Tidewater has 20 fertilizer outlets in the coastal regions of Virginia and North Carolina. Last year, Tidewater's liquid fertilizer retail sales were in the multi-million dollar range.

Mark Nuzum, manager/agronomist at Tidewater's Chesapeake facility, will handle marketing and sales of the acquisition.

#### RESEARCH

## **Dutch find treatment** for Dutch elm disease

Scientists at the Institute of Applied Chemistry in Zeist, Holland, have found a way to treat Dutch elm disease.

They have found that injecting a tree with fenpropimorph, a fungicide also used to treat mildew on cereal crops, will block the spread of the fungus that causes the disease. Fenpropimorph has been proven harmless to Dutch elms, but prevents the fungus from giving off

spores that spread the disease.

It can be used either preventatively or curatively. Used preventatively, it has been 100 percent effective.

Treatments of this kind are laborintensive and, thus, expensive. But researchers at the Institute say a Dutch elm "vaccine" could be on the market as early as next year.

#### CHEMICALS

## Turf regulator shows promise in Northwest

While turf growth regulators have won increasing acceptance in many parts of the country, they haven't been widely available in the Pacific Northwest. But research conducted with Limit turf regulator shows promising results for reducing grass growth in the particular growing and climatic conditions of Washington and Oregon.

Tom Cook, associate professor of horticulture at Oregon State University, has been testing the product in Oregon's Willamette Valley.

"We've seen the most impressive results on bluegrass," he says. "The treatment with Limit did not completely stop grass growth as some growth regulators do, but it did slow it down significantly. There was no visible discoloration or loss of turf quality."

Mike Vandecoevering of the Wilbur-Ellis Co. adds, "From what we've seen so far, it appears to have a real nice fit in our landscape management programs." The Wilbur-Ellis Co. has begun distributing Limit on a test market basis in Washington and Oregon.

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