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The newsletter of mine site restoration and revegetation of other disturbed lands.

The newsletter of mine site restoration and revegetation of other disturbed lands

September 4, 1978/VOL. 1, NO. 3

S. J. BARNETT

**Almost all interim regs upheld;
possible changes up to OSM**

Industry had few reasons to celebrate over the holiday weekend since it was still suffering from the impacts of U.S. District Judge Thomas Flannery's August 24 decision that struck down most of its lawsuits challenging the OSM's interim regulations. The few bright spots in the lawsuit pertained to reclamation, but even some of those decisions were sent back to the Secretary of the Interior and OSM for further comment, with no promise of revision.

The only area where Judge Flannery has told OSM that the regulations must be changed pertains to prime agricultural farmlands.

Flannery struck down the clause in the farmlands regulation saying that any land used during five of the last 20 years would be placed in the prime farmlands category. Saying the regulations was "clearly overbroad in achieving its stated purpose" he has asked OSM to come up with a new definition

There were some partial victories. Judge Flannery has required OSM to reconsider its rule on sedimentation ponds and dams that imposes a three-foot difference between the top of the dam and the surface of the water. But OSM was only asked to reconsider this since Flannery felt it did not document its reasons for the requirement in previous court briefs. He seemed to feel that the government should more or less double-check this since "these dam requirements are

OSM will be given 60 days to reconsider some provisions that regulate the use of valley and head-of-hollow fill for spoil disposal. The judge asked the government agency to look again at this requirement only after West Virginia cited a March 1975 interim study by Skelly & Loy, the Harburg, Pa. engineering firm, which had determined much less costly methods in its report titled "Environmental Assessment of Surface Mining Methods, Head-of-Hollow Fill and Mountaintop Removal."

The judge also cited the study when asking OSM to review its regulations governing design criteria for underdrains and compaction of spoils in valley fills in lifts that are less than four feet thick. He also said OSM should "take into account" that West Virginia is considering variances in the latter requirement.

The final partial victory was won on the 100-foot buffer zone requirement around intermittent and perennial streams, an area considered "critical" by the Mining and Reclamation Council of America's Dan Gerkin. Here, too, the judge only asked OSM to reconsider since the reasons for its regulations were not stated in its court brief. Flannery said he would not join its enforcement since it is reasonable, supported by state authorities and technical literature, and contains a variance procedure.

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Industry was walloped in other areas. The court struck down Peabody Coal Company's challenge that lands improperly disturbed prior to mining must be restored to the premining use of surrounding lands if surface mining occurs. Finally,

Finally, the court upheld the limited use of terraces and design criteria, and the right of OSM to approve the terrace

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4 (ITS) DATA FROM HERITAGE
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Nonselective weed control

Ortho continued from page 48

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Banvel 3-20

Liquid containing dicamba, 2,4-D, and 2,4,5-T. Mix 1 gal. Banvel 3-20 with 100 gal. water per acre. Lasts 3 to 5 years for brush control. Costs \$16.25 per gal.

Banvel 5-10

Oil soluble liquid dicamba and 2,4,5-T. Apply 1 to 3 gal. Banvel 5-10 in 100 No. 2 diesel oil per acre. For dormant or year-round application. Costs \$20.50 per gal.

Banvel 5-20

Oil soluble liquid dicamba and 2,4-D. Can be used on drainage ditch banks where 2,4,5-T can't. Same rates as 5-10. Costs \$18.10 per gal.

Banvel 7-10

Water soluble liquid dicamba and 2,4,5-T. For brush control lasting 3 to 5 years. Mix 7 to 10 gal. Banvel 7-10 in 100 gal. water per acre. Spray to runoff. Cost \$18.50 per gal.

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FEBRUARY 1979/WEEDS REES & TURF

ASPLUNDH IS LARGE PART OF RIGHT-OF-WAY HISTORY

Much of the basic research and development of today's herbicides have taken place on utility rights-of-way. Few companies have more experience in this area than Asplundh Tree Expert Company, Willow Grove, Pa. The company has grown with both the electric utility and herbicide industries. What they have learned and how they use herbicides is worth noting.

Asplundh began trimming trees for the Philadelphia Electric Co. in 1928. Bob Poley at Asplundh explains, "There were two reasons for the three Asplundh brothers to set up a business only for the utility industry; an early misunderstanding with a property owner over permission to trim his trees and a growing need by the utilities for an outside contractor to trim and maintain clearance around wires and substations." The company has grown to more than 9,000 employees throughout the U.S. and Canada.

Timing has been a crucial factor in the success of the Asplundh Tree Expert Co. Of equal value, has been the company's willingness to change and update their operations. For instance, when the company couldn't buy the type of insulated aerial lift equipment it needed for working around electric wires, it began making its own. Now Asplundh manufactures an entire line of equipment related to line clearance work.

In addition, Asplundh's method of trimming has changed through the years. The company now uses a newer trimming method, resembling natural pruning so that the appearance and "chemistry" of the tree remains undisturbed.

"When Amchem Products, Inc. developed 2,4-D during the World War II era, the Asplundh Company, along with Amchem's Director of Research, R.H. Beatty, recognized its use for vegetation management in right-of-way maintenance.

Not only has Asplundh carefully monitored its own use of chemicals, the field men also work closely with chemical companies to test new products before they enter the market.

Therefore, when Asplundh decided to use a "total vegetation control" material, they tested to find a safe product.

Total control is desirable at substation and storage areas where a certain amount of landscaping is necessary, but the area is remote and it's uneconomical to control noxious weeds by hand. The greatest danger is using a product which can "leach" or spread to other desirable vegetation.

"Amizine (Amchem Products) contains amitrole and simazine and is one of the least hazardous materials to use around ornamental plantings for total control," says David Fritsch, a chemical supervisor at Asplundh. "Low levels rarely move outside the area in which they are applied."

According to Fritsch, utility companies maintain substations with large transformers on a crushed rock base which many people find aesthetically offensive. So, to make these areas more visually palatable, Asplundh chemically treats these transformer bases. This is one area where a total vegetation control product becomes a necessity.

The creation of a fire break in highly flammable or potentially hazardous areas is another important use for such a product. "It can be used to destroy vegetation around refineries and tank farms where grasses and weeds could definitely present a fire hazard," says Burrell.

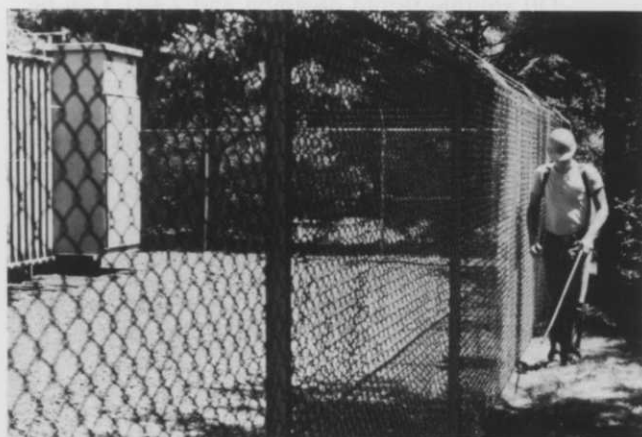
Asplundh is under contract with the Puget Sound Power and Light Company, Kirkland, Washington, to treat around utility poles in farming areas with a total control herbicide. For years farmers have been torching weeds in ditch banks bordering their property. While this is a quick way to get rid of the weeds, the fires often severely damage utility poles to the point that they must be replaced.

"Many methods have been used in the past to keep these poles from burning," says Asplundh. "Originally the utility tried putting metal shields

Continued on page 58



In the early days of electric line maintenance, Asplundh had one-man crews with little equipment



An Asplundh worker uses amizine to control fence-line vegetation.

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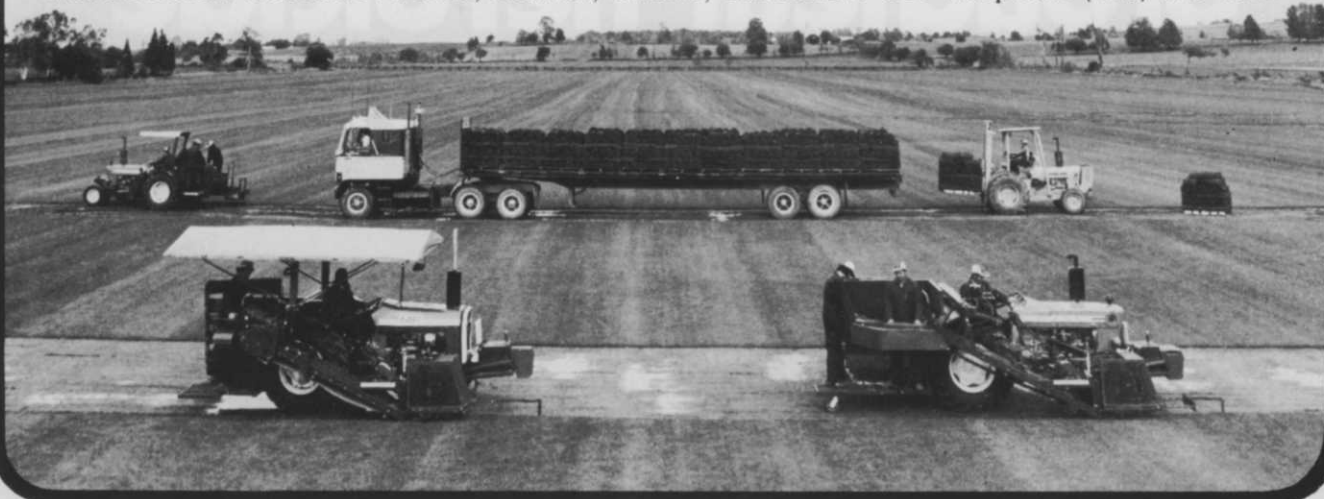
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The Trimec formula, unlike any other in the world, uses ordinary components in an *extraordinary* way. We're talking about 2,4-D, MCPP and Dicamba, the familiar chemicals. But there's a marked difference in the way they're put together. The result is best explained by the word *synergism*. That is, the interaction of Trimec ingredients produces an intense yet gentle strength: weedkill power *much greater than the sum of the components separately*. This mathematical phe-



Bent grass formula also available

Herbicide efficiency entails more than broad-spectrum power. It demands economy, ecological merit and conservation of your time and energy.

nomenon (a kind of $2 + 2 = 5$ effect) brings important benefits:

- 1) Broad-spectrum power that kills practically all weeds.
- 2) A smaller chemical dosage per acre of coverage.
- 3) The consequent reduced threat to ornamentals through less root-absorption and less-concentrated "drift".
- 4) The lower cost of more efficient chemical usage.
- 5) Low-temperature efficiency: effective at 50° F. or cooler.

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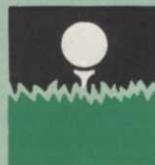
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around each pole or manually kept the grasses cut very short around the poles. But the metal shield acted as a furnace, transferring heat into the pole and causing it to burn, and the manual labor for cutting the grass was time-consuming and expensive."

Thus, a total vegetation control product seems to be the answer to this dilemma. Application is fast and easy, costs are low and the Puget Sound Power and Light Company has lost an average of one pole per year due to fire damage since they've been using this method — compared to up to a thousand a year with previous methods. Run-off into ditches nearby must be avoided.

Asplundh crews apply the herbicide annually in the early spring as soon as the snow melts. Higher rates are used for first treatment of poles but the rates are lowered for retreatment in ensuing years. For more efficient application of the material, Asplundh has modified a standard 300-gallon spray truck to include a boom and spring for the hose — to keep it off the ground — and a jump seat at the back for the person actually spraying. This way the crew is able to spray about 300 poles a day.

"When you consider that one pole costs about \$500 to replace — not to mention the inconvenience caused by a lapse in service — you realize that the cost of spraying is merely incidental to the utility company," says Asplundh. "They look at this type of work as preventive maintenance."

Since many states have actual vegetation control regulations to prevent the spread of noxious weeds, a total control product also helps the utility companies stay within the boundaries of the law.

In addition, driveways, fenced areas and pole yards — where cable, cross arms and poles are stored — are three other places where total control is desirable.

Total vegetation control represents only a small portion of the chemical services performed by Asplundh, but — other than manufacturing — chemical spraying is the biggest sideline of the company's line clearance work.

WTT



Modern Asplundh crews have more manpower, larger trucks with larger tanks and twin-nozzle hoses for speedier application.

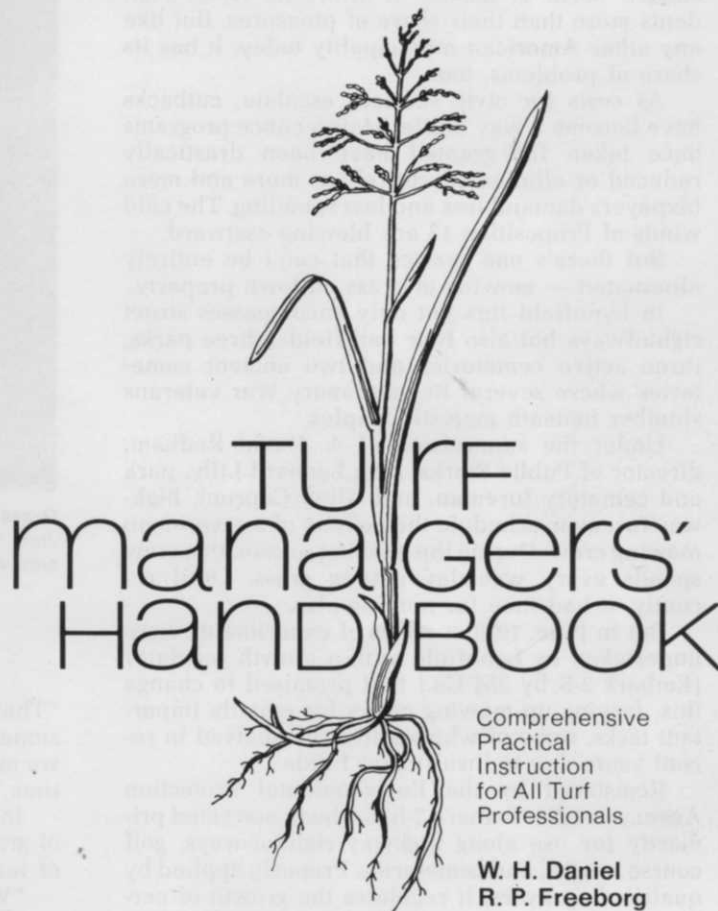
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SUBURBAN MOWING EFFICIENCY IMPROVED BY GROWTH REGULATORS

Lynnfield, Mass., is a typical New England town. A suburb north of Boston, it offers its 12,000 residents more than their share of pleasures. But like any other American municipality today, it has its share of problems, too.

As costs for civic services escalate, cutbacks have become a way of life. Maintenance programs once taken for granted have been drastically reduced or eliminated entirely as more and more taxpayers demand less and less spending. The cold winds of Proposition 13 are blowing eastward.

But there's one service that can't be entirely eliminated — mowing of grass on town property.

In Lynnfield this not only encompasses street right-of-ways but also four ball fields, three parks, three active cemeteries and two ancient cemeteries where several Revolutionary War veterans slumber beneath majestic maples.

Under the supervision of A. David Rodham, director of Public Works, both Leonard Lilly, park and cemetery foreman, and Allen Caproni, highway foreman, schedule the activity of a seven-man mowing crew. During the growing season, this crew spends every weekday cutting grass. Until recently, it had time for nothing else.

But in June, 1978, a series of experiments were undertaken by Lynnfield with a growth regulator (Embark 2-S by 3M Co.) that promised to change this, freeing up mowing crews for equally important tasks, some of which had been shelved in recent years due to insufficient funds.

Registered by the Environmental Protection Agency in 1978, Embark 2-S has been marketed primarily for use along highway right-of-ways, golf course roughs, and cemeteries. Properly applied by qualified sprayers, it regulates the growth of certain species of grasses, including Kentucky bluegrass, tall fescue, common bermudagrass and several California native grasses.

Although rates vary according to the species being treated, one and one-half pints of the chemical mixed with 15 to 50 gallons of water is the recommended application for one acre of Kentucky bluegrass and tall fescue, according to the manufacturer.

An application made at any time when grass is actively growing reduces the growth of grass for a minimum of five to eight weeks. In addition to controlling turf growth, the growth regulator suppresses seedhead formation.

Leonard Lilly explained the procedures he used in Lynnfield to reduce the need for constant mowing:

"We used a 500-gallon spray tank mounted on the back of a six-wheel flatbed truck. This is the same rig we normally use for protecting trees from insects and diseases.

"We poured in 100 gallons of water at a time, added the recommended amount of chemical and sprayed with approximately 175 psi.

Lilly further stated that he applied this new plant growth regulator in a cemetery on June 10.



Grass in foreground was treated with growth regulator on June 10, while that in background was left untreated. Neither area was mowed. Photo was taken in August.

"There were no observable effects upon tombstones, shrubs or flowers. Following application, we mowed this area on July 14 for the first and last time."

In Freeman Park, a 10,000-square-foot expanse of grass, Lilly pointed out an especially lush patch of turf.

"We used to have to mow this moist spot once a week," he declared. "It was so thick that we had to spend an extra hour raking the clippings. They would smother the grass if left there."

After treating this area in mid-June, the grass grew no higher than eight inches. "We saved ourselves eight mowings just in this area alone."

Anyone who spends any time at all on public roads these days has seen what reduced mowing can lead to in terms of limited visibility and increased safety hazards that result from it.

Neglected, median strips — for instance — will rapidly deteriorate beneath a blanket of weeds that will choke out grass, shrubs, groundcovers and other desirable vegetation. In time, ailanthus, black locusts, poison ivy and other pest plants will take over as nature fills yet another vacuum.

Allen Caproni sees no need for this to happen in Lynnfield, because future use of the plant growth regulator should reduce mowings, thereby making funds available for broadleaf control.

"After all," he said, "this year we've cut the chemically treated areas only once in some cases and not at all in others. As a result, our work crew has had time to clear high brush from around the town ball field and accomplish other important jobs." **WTT**