

# Vegetation Problems?

# Spike®

is the tough one!

Try  
Spike  
granular  
also

## **Spike** lasts longer than most other herbicides with fewer pounds per acre!

When applied in accordance with label directions, commercial field use has proven that Spike remains effective longer than other products tested, preventing regrowth and permitting lower application rates in succeeding years.

## **Spike** resists lateral movement!

Spike is non-volatile, control stays where it is needed instead of "shifting" into unwanted areas, enabling specific placement.

## **Spike** gets many vines, brambles and woody plants!

Years of commercial use have proven Spike's effectiveness against a wide spectrum of undesirable and unwanted vegetation, especially the tough perennials tenacious vines, and so called hard to control species, like mullein, pigweed, curley dock, and kochia.

## **Spike** gets many of the brush species the others leave behind!

The most persistent vegetation control problem is **brush**. Spike helps solve that problem almost any time of year . . . and Spike is really tough on white oak, white ash, and big leaf maples.

## **Spike** provides versatility and easy application!

Commercial use has proven equal effectiveness for both of Spike's principal product forms . . . wettable powder for spray application, or granular for mechanical application.

Wherever weed and brush control is the problem . . . in storage yards, parking areas, tank yards, around buildings and warehouses, along road shoulders, fence rows, ditchbanks and railroad spurs . . . the ideal remedy is SPIKE. It **does** what it **promises**!

Order Spike from your Elanco Distributor today. Spike should be the **foundation** of your vegetation control program.

Also available as a granular form in 50 lb. bags and a convenient to use dispenser box.

To avoid killing desirable vegetation, read label before application.

SPIKE is a registered trademark for Elanco Products Tebuthiuron

Write 147 on free information card

## ELANCO

Elanco Products Company, A Division of Eli Lilly and Company, Dept. E-455, Indianapolis, Indiana 46206 U.S.A.



**“I’m a customer  
and I have ideas, too!”**



You don't become the world leader in turf care equipment without paying attention to what people want.

So we listen to our customers. To our distributors. To people who buy our equipment. To people who service it. And to the people who go out under the hot sun and use it.

Then we design our products with new features. Make sensible improvements. And bring out new models.

All to be sure that every product we offer to you is made to match your needs.

And then we back our products with the kind of service and parts inventory to keep the equipment running like it should.

Next time you're ready to order turf care equipment, ask your Jacobsen distributor for his recommendation. And why.

The more you listen to what he has to say, the more you'll know we've been listening.

# We hear you.

**JACOBSEN**  
**TEXTRON**

Jacobsen Division of Textron Inc.

Write 115 on free information card

# LANDSCAPE

## CONTRACTOR NEWS

### Construction conference shows lack of unified solution to economy

Congressmen, representatives of executive agencies, and contractors could not agree on solutions to the economy at the Construction Industry Legislative Conference held in Washington, DC, in March. Although together in a spirit of mutual benefit, the various groups were divided over the proper answers.

Congressmen, in particular, presented a wide spectrum of plans to 550 members of construction trades (17 from ALCA). They expressed various opinions on the appropriateness of a tax cut and other suggestions to halt inflation.

The consensus of executive agency people, such as the EPA and USDA, was that the mild recession the country is in now will end in the third quarter of this year. A member of the Office of Management and Budget said that inflation this year will hover between 11 and 12 percent.

Contractors agreed that finding work is no problem, but getting financed is. A boost in money supply will pick the industry up.

### Interior landscape directory available

The Interior Landscape Div. of ALCA has published its new directory of interior landscape contractors, "Who's Who in Interior Landscaping," which includes listings for some 100 of the leading interior landscape firms across the country.

Listings contain the basic information to contact each company along with the contractor's specialties and a categorized firm size. It also tells the officers of the I.L.D.

The 16-page booklet is available from: ALCA Interior Landscape Div., 1750 Old Meadow Road, McLean, VA 22102. There is no charge but requestors are asked to send a self-addressed business (#10) envelope.

### Students publish landscape newsletter

The ALCA student chapter at Mississippi State University has published a newsletter which is being distributed to all graduates in landscape contracting from the university from 1973-79.

Features include guest speakers on campus from the industry, graduates in the curriculum, awards received by instructors for landscape, companies sponsoring scholarships, and more.

Industry firms are welcome to subscribe. Funds from the newsletter will be used for student field trips, attendance at industry meetings, and publication of the 1980 graduate directory. Write to: MSU/ALCA Student Chapter Newsletter, P.O. Drawer MQ, Mississippi State, MS 39762.

### FERTILIZER

### Fertilizer embargo could hurt U.S. growers

The U.S. embargo against fertilizer exports to the Soviet Union could cause higher fertilizer costs for American farmers this year, many experts believe.

The reason is that the U.S. also buys fertilizer from the Soviets. U.S. exports consist of phosphoric acid, a source of phosphate fertilizer. The Soviet Union sells the U.S. anhydrous ammonia, which yields nitrogen.

If the Soviets ban shipments of ammonia, it would sharply increase nitrogen prices and U.S. farmers use twice as much nitrogen as they do phosphates. Prices "would simply explode," says Larry Jones, an economist with Chase Econometric Associates Inc. He figures that nitrogen prices could jump 40 percent by June 1981.

The Wall Street Journal reported this and said, "U.S. fertilizer producers, rendered cautious by the boom-and-bust nature of their business, which went through a bust phase two years ago, are careful about predicting a renaissance for U.S. ammonia producers in the event of a Russian ammonia cutoff. Increased demand for U.S.-produced ammonia could spur the reopening of some of the 23 idle ammonia plants in this country, analysts say."

### PARKS

### More than 300 attend park training program

With the theme, "Strategies for effective management," the Great Lakes Park Training Institute held its thirty-fourth annual session of talks and workshops at Pokagon State Park, Angola, IN.

Ralph Wilson, chief recreation specialist of the Soil Conservation Service, USDA, gave the keynote address on "So you think you are a professional." Other sessions dealt with maintenance efficiencies, use of volunteers, vehicle problems, turfgrass and groundcover for fuel efficient maintenance, and topics concerning park directors. The Heritage Conservation and Recreation Service simulated a meeting between park people and leaders of a

### News from page 10

would provide a paper trail wherever the equipment goes.

One thing manufacturers and contractors seem to agree on is that neither want more government rules and regulations, which the Motor

Vehicle Theft Prevention Act of 1979 would likely bring. "Manufacturers realize that if the situation continues, there'll be legislation that'll force things down their throat," says Deery. "They don't want that and neither do we."

*Continues on page 43*

# We put a lot into our Turf-Truckster.

One of the most dependable vehicles for moving your crew around is the 3- or 4-wheel Cushman® Turf-Truckster. But it was also designed for more than just transportation.

Equipped with an optional PTO and hydraulic system, both models accept a wide range of special, add-on turf maintenance equipment. So with just one Turf-Truckster you can haul, dump, grade, seed, spray, spread, top dress, aerate and more.

But there's more to a Turf-Truckster than versatility. There's a rugged 18-hp engine that's built to take on your turf. It comes with a standard 2 to 1 auxiliary transmission. A transmission built to allow a gear driven PTO to be attached directly to it. And common sense engineering makes the Turf-Truckster steer clear of the repair shop, too.

The 3-wheel model gives you the maneuverability of a tight 17' turning circle, while the 4-wheeler has seating room for two. And it just takes minutes to



add any of the Turf-Truckster's accessory pieces, thanks to Cushman's pin-disconnect system. No bolting, no hitching. Just snap two or three pull pins in place and you're ready to hit the turf.

If a good transportation/hauling vehicle is all you need, though, look at the Cushman Runabouts. There's an 18-hp two-seater, and a fuel-slingy 12-hp one-seater model. Both Runabouts are economical to own. And like any Cushman vehicle, they're built tough.

There's nothing like a Turf-Truckster or Runabout to get more work done, in less time and with less manpower. For a closer look at what goes into, or behind, a Cushman vehicle, return this coupon today.

80-CUT-2

## Show me what you put into a vehicle, Cushman.

- I'd like a demonstration of the Turf-Truckster (3-wheel or 4-wheel). (Circle One)
  - I'd like a demonstration of the Runabout (12-hp or 18-hp). (Circle One)
- I'm interested in seeing these Turf-Truckster attachments:  Aerator;  Sprayer;  Top Dresser;  Grader/Scarifier;  Flatbed/Dump Box;  Cyclone Seeder/Spreaders.
- Send me your new 1980 catalog.

Name \_\_\_\_\_  
Title \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

# And a lot behind it.



## The Turf-Truckster CUSHMAN The Labor-Saving Turf System.

2028 Cushman, P.O. Box 82409  
Lincoln, NE 68501

Write 110 on free information card

© Outboard Marine Corporation, 1979. All rights reserved.

# EUROPEAN BEECH CULTIVARS HAVE ADVANTAGE OVER AMERICAN

By Douglas Chapman, Horticulturist, Dow Gardens, Midland, MI

American or European Beech can be an exciting addition to the landscape if used in the correct situation or with compatible plants.

**American Beech** (*Fagus grandifolia*), a native climax forest tree, is often found associated with Sugar Maple. It thrives in well-drained, fertile soil with a high water table (within two feet of the surface). *Fagus grandifolia* is found near lakes, ponds, flood plains, or slightly upland sites. This giant native reaches 50 to 70 feet in height in the landscape with some in the wild reaching 100 feet in height. American Beech, at maturity, has an oval habit in the forest, but when grown as a specimen, its lower branches are somewhat descending.

The foliage is a silver-green when in new growth, changing to a dark, rich green throughout the summer, with exciting fall color. The fall color can vary to yellow, orange, or brown on the same tree with brown predominating. The fall color is unique as many of the upper leaves fall off, giving the tree a "skirted" look to the lower portion. Further, the lower leaves remain on the tree for much of the winter, becoming a translucent pale brown, giving the plant a ghostlike appearance.

The clear gray bark is outstanding throughout the year, adding color and texture to the "woody" landscape. A group of old trees gives one the feeling of a herd of elephants.

American Beech is a sensitive native aristocrat. This plant should be used in natural park situations, not golf courses, the home landscape, or areas of active recreation. It is so sensitive that slight changes in grade (two to three inches), wounds (a lawn mower), or pruning will result in decline or death. American Beech can be pruned when young (cuts under one inch in diameter) during March or before dormancy breaks. Pruning at other times of the year or larger wounds often result in heartwood rot. This plant is a poor compartmentalizer. Insect problems are many, but rarely damage the tree, with the exception of borers. Borers are an indicator that the plant is no longer in good vigor and usually contribute to the death of the tree. Presently, cultivars of *Fagus grandifolia* haven't been developed. One desirable characteristic for a cultivar would be a plant that has isolated or compartmentalized wounds.

**European Beech** (*Fagus sylvatica*), although related to our aristocratic native, is more adaptable for the landscape and has many interesting cultivars. *Fagus sylvatica* is relatively easy to transplant and becomes established within a year. Ultimately, it attains 80 to 90 feet in height. The oval, mature habit is accented with dense branching to the ground. In fact, European Beech is so dense that grass is unable to grow underneath it. The lower branches, which add to its gracefulness, should be left on. The leaves of European Beech have a smooth margin as contrasted to the coarsely serrated margin of the American Beech. The leaf color is a bright green when new, becoming a rich

dark green as summer progresses. Fall color is slow to develop or non-existent most years.

European Beech will tolerate shade, as does American Beech, but thrives in full sun. It can be used in large area landscapes, e.g. parks, institutional grounds, or estates, as a specimen tree. European Beech can be planted in rich, well-drained soil with a high water table, as with American Beech. In fact, if the water table isn't within two feet of the surface, one should consider supplemental irrigation. *Fagus sylvatica* can be pruned, but heartwood rot is still a problem. Wounds from lawn mowers or large limb pruning will close faster than *Fagus grandifolia*, but compartmentalization is still a problem. Optimally, pruning would be limited to early spring (March through dormancy break) on two-inch or smaller branches. Generally, European Beech can tolerate difficult environmental conditions more than the sensitive native American Beech.

**'Fern-Leaf' European Beech** (*Fagus sylvatica* 'Asplenifolia') has a habit similar to European Beech, e.g. 90 feet in height, being a perfect oval. The deep-cut leaves give a fern-like or delicate feeling. This tree seldom needs pruning when grown as a specimen. It can be used effectively in parks, large estates, or institutional grounds. To add to its gracefulness and excitement, one should leave the lower branches clear to the ground. This reduces maintenance and the possibility of wounds.

**Columnar European Beech** (*Fagus s. 'Fastigiata'*) is a narrow, upright plant which is exciting when used in mass plantings or as a hedge. Its ultimate width is 20 to 25 feet with a height of 40 to 50 feet.

**'Purple-Leaf' European Beech** (*Fagus s. 'Atropunicea'*) is the most readily available cultivar. This tree's leaf is dark purple in early spring, becoming a rich, dark green in early summer, analogous to 'Schwedleri' Norway Maple. The rate of growth of this plant is 12 to 18 inches in height annually, after establishment.

**Weeping European Beech** (*Fagus s. 'Pendula'*) is one of the truly exciting pendulous trees. Staking is required until the tree reaches 60 to 80 feet in height. This tree, from the underside, looks like a spiraling ladder, ascending to the sky. From the outside, it is a mass of foliage, with pendulous branches - interesting in all seasons. It establishes slowly, growing six to eight inches annually in height. If there is an outstanding cultivar of European Beech, *Fagus s. 'Pendula'* is probably it.

**Copper Leaf European Beech** (*Fagus s. 'Riversii'*) holds its reddish foliage throughout the growing season. When its leaves first unfold, they are a vivid red, turning a deep purple early in the summer. This is the most exciting and easily transplanted cultivar of the copper or purple-leaf forms.

**'Tricolor' European Beech** (*Fagus s. 'Roseo-marginata'*) is a tree adapted to the Central

*Continues on page 18*



## No mixing, no burning, no hassle.

Introducing FOLIAN®... the easy-to-use liquid fertilizer that's safe and effective on any kind of turf.

FOLIAN is a complete fertilizer. Its special formulation of N-P-K, sulfur and iron gets nutrients directly into grass tissue. And FOLIAN will not cause tip burn when used as directed.

### Convenient to use

FOLIAN is the only turf-builder you'll ever need. It saves you time because there's no mixing or agitation required before using FOLIAN. And FOLIAN can be applied in more concentrated form than most other liquids. As a result, you can service more lawns per truckload

with fewer wasted man-hours.

A clear solution of the highest quality, FOLIAN won't settle out in your tanks. It's compatible with most pesticides, too.

### Greens lawns fast

Because of its patented formulation and foliar activity, FOLIAN greens up turf quickly — faster than dry fertilizers or suspensions. And at the recommended rates, FOLIAN supplies enough residual fertilizer in the soil to keep grass green and healthy for many weeks.

### Good for your business

Your customers will love the results

FOLIAN gives. And you'll appreciate FOLIAN's convenience.

Best of all, FOLIAN makes your lawn care service more valuable. It means repeat business from satisfied customers and greater confidence in you.

Give FOLIAN a try and discover how it can mean more green for both of you.

To find out more about how to get started using FOLIAN, call toll-free 800-228-2178 Omaha, Neb., 800-446-1841/800-446-1845 Hopewell, Va. or write Allied Chemical Corporation, Dept. AG, Box 2120, Houston, TX 77001.

Write 119 on free information card



# FOLIAN® complete liquid fertilizer.



Range of beech. It is dependably hardy as far north as Detroit, yet thrives further south, e.g. Cincinnati. The foliage is usually purple leaves with light pink surroundings and a white margin. This handsome specimen adds unique interest to formal or inner city park areas.

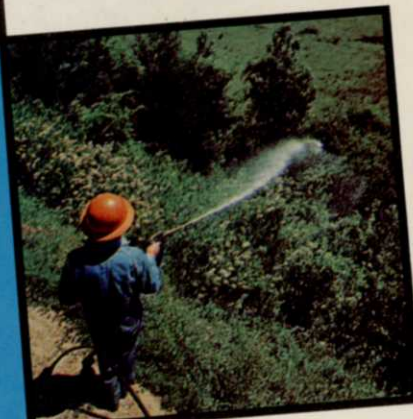
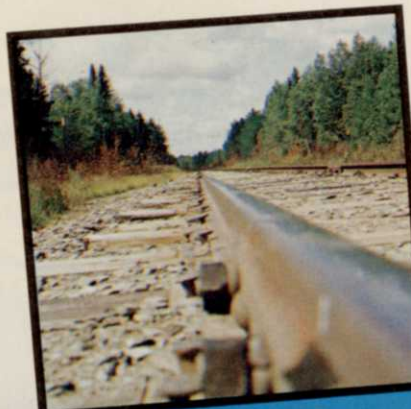
American Beech should be strictly limited to naturalistic areas where lawn mowers and/or pruning shears never touch its bark. American Beech is an exciting native tree which doesn't tolerate man and his manipulations of the landscape. European Beech and its cultivars are far more diverse and adaptable to the American landscape scene. European Beech transplants easier, establishes more rapidly, responds well to light pruning, and can be an exciting specimen plant when used in large landscapes, e.g. institutional grounds, parks, or golf courses. **WTT**

**The outstanding cultivar** of European Beech *Fagus sylvatica Pendula*, (left) is interesting in all seasons. However, it establishes slowly and must be staked until it reaches 60 to 80 feet in height.

**Fern-Leaf European Beech** *Fagus s. Asplenifolia* (below) seldom needs pruning and can be used effectively in parks, large estates, and institutional grounds. Lower branches eliminate turf care underneath.







**Banvel®**  
herbicides  
**your Big Plus  
Solution  
to year round  
vegetation  
management**

**BANVEL adds a Big vegetation control PLUS to every vegetation management program.**

More and more vegetation supervisors and applicators are switching to BANVEL® Industrial herbicides. They have learned that the broad spectrum vegetation control of BANVEL formulations makes an ideal addition or

substitution for the popular phenoxy herbicides in vegetation management programs.

Name any tough vegetation problem... broadleaf weeds... woody brush... or vines. We have a BANVEL herbicide program to keep problem vegetation in check.

There's a BANVEL Industrial formulation program for any need... roadside... railroads... utilities... drainage ditches... forestry projects... industrial sites... and many *more*.

Let us show you how you can cut application costs with our low oil or no oil application programs.

We have developed a BANVEL Industrial Vegetation Program for effective vegetation management all year long — spring... early summer... fall... or winter dormant applications.

Let our Velsicol Industrial Herbicide Specialists build a BANVEL Vegetation Control Program to meet your specific problems and needs. Contact us today.



**Industrial Vegetation Control Department  
Velsicol Chemical Corporation  
341 East Ohio Street  
Chicago, Illinois 60611**

Velsicol is a subsidiary of Northwest Industries, Inc.

I am interested in economical, effective vegetation management. I would like to have a vegetation program of BANVEL formulations and low oil application designed for my specific vegetation problems.

NAME \_\_\_\_\_

TITLE \_\_\_\_\_

FIRM \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP CODE \_\_\_\_\_

PHONE NUMBER \_\_\_\_\_ / \_\_\_\_\_

# How to choose the right iron.

