

Oh, the shade of the  
old apple tree  
is as bug-free  
as bug-free can be...

Thanks to Penick's versatile line of shade-tree insecticides. For total protection of shade trees, shrubs and ornamentals, Penick is your best basic source of pesticides. Pioneers in pest control chemistry for more than thirty years, we offer a wide range of highly effective concentrates. Take your pick of any of the formulations listed below and make short work of aphids, mites, elm bark beetles, Japanese beetles, leaf hoppers, tent caterpillars, canker worms and other tree pests. Write for information and suggested applications.

**PENICK**

*Farm Chemicals & Insecticide Division*

**S. B. PENICK & COMPANY**

100 CHURCH ST., NEW YORK, N. Y. 10008  
735 WEST DIVISION ST., CHICAGO, ILL. 60610  
4161 BECK AVENUE, ST. LOUIS, MO. 63116

Insecticide formulations prepared exclusively by S. B. Penick & Company:

**SHADE TREE INSECTICIDE SPRAY FORMULA No. IN-4161**

Emulsifiable concentrate containing DDT, Rotenone, Kelthane and Ovex

**FOLIAFUME® and BI-FOLIAFUME®**

Emulsifiable concentrates containing Pyrethrins and Rotenone

**MALATHION E-5**

Emulsifiable concentrate containing 5 pounds Malathion per gallon

**SHADE TREE INSECTICIDE SPRAY FORMULA No. 516**

Emulsifiable concentrate containing DDT and Rotenone

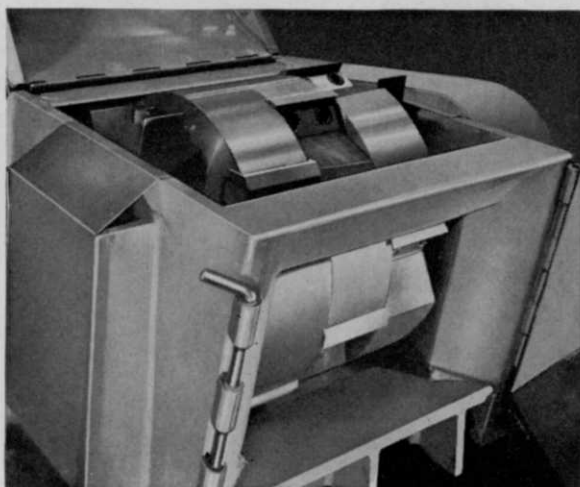
**SPECIAL FOLIAR SPRAY No. 482**

Emulsifiable Pyrethrins concentrate



## Naturally, the chips are better

### Staggered knife pattern



Higher cutting efficiency... reduced maintenance... this is just the start of the advantages you gain with Brush Chippers from Mitts & Merrill. Naturally, the chips are better. The staggered knife pattern, exclusive with Mitts & Merrill, reduces material by shaving, rather than chopping, producing smaller, more uniform chips that are perfect as mulch and for soil build-up.

The Mitts & Merrill chipper is ruggedly and *sensibly* engineered throughout... from the telescoping discharge chute... to the solid steel plate cylinder... to the torsion-type coil spring suspension. It's built to do all jobs faster with years of trouble-free service.

### Exclusive Mitts & Merrill time-saving features

- *Telescoping discharge chute*... gives complete flexibility and convenience for discharge into various heights of dump boxes.
- *Staggered knife pattern*... smoother, more efficient cutting action.
- *Swing-away feed chute, hinged cover*... exposes entire cylinder in seconds for fast knife changing and throat bar adjustments.

### New bulletin

includes useful data, complete model description, plus Check List to help you write Brush Chipper specifications. Write today for your free copy. Mitts & Merrill, Inc., Dept. WT-57, 109 McCoskry, Saginaw, Michigan 48601.



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**mitts & merrill**



you couldn't  
grow Poa Annua  
if you  
tried...



...once you've sprayed with  
**PRE-SAN™**

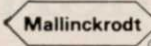
Here's your effective *pre-emergence* control for three ugly weed-grasses. Spray early with Mallinckrodt Pre-San and you'll have . . .

**NO POA ANNUA—NO CRABGRASS—NO GOOSEGRASS!**

That's right. Pre-San controls all three—with real economy.

So don't let fall poa annua push you around any more. Spray with Pre-San before fall poa annua seed germination (August or early September in most areas). You'll have effective poa annua protection through the fall and winter. Then early next spring, apply Pre-San again to prevent crabgrass and goosegrass throughout next season. One product puts an end to your major weedgrass worries.

Pre-emergence Pre-San really works—and it's labeled safe for your finest turf. Get Pre-San now from your Mallinckrodt distributor.



**MALLINCKRODT CHEMICAL WORKS** Turf Products • St. Louis • New York • Los Angeles



THE PRECISION IN  
**FITCHBURG  
 CHIPPERS**  
 means more money for YOU



## New brochure will help you get your appropriation for a Fitchburg Chipper

See for yourself all the ways rugged, precision-engineered Fitchburg brush chippers excel in economy, safety and convenience.

See close-ups of the 6 exclusive features that make Fitchburg the chipper of choice for those who are interested in long term, trouble-free brush chipper operation...not just price.

Note the spring-activated feed plate—the chipper "heart." No other chipper has the patented feature that adjusts to the size of the wood up to the machine's rated capacity. Chipping is smoother, quieter, faster.

Compare other Fitchburg features—its rugged construction, safety stop-switch—large hinged waist high feed apron, Solenoid switch\*, and patented quick-opening two-way chute\*.

After you have studied the brochure, should there be any questions, call Area Code 617 DI 3-7416 and let us arrange a demonstration. Have your Committee watch this chipper in action.

They will sell themselves. Take the first step now. Write for the brochure.

\*Optional Equipment

### Free Brochure - Mail Coupon

#### FITCHBURG ENGINEERING CORPORATION

Fitchburg, Massachusetts. Dept. WTT-867

Please send your new brochure.

We now have in use \_\_\_\_\_ chippers.

Brands \_\_\_\_\_

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Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

# WEEDS TREES and TURF

FORMERLY WEEDS AND TURF

August 1967  
 Volume 6, No. 8

#### Features:

Select Street and Lawn Trees .....	9
Can You Spot Evergreen Diseases By Dr. Donald F. Schoeneweiss .....	12
Aquatic Vegetation Control—A Major Segment of the Industry .....	16
Mechanical Wheel-Move Irrigation System Saves Field Time For McGovern Sod Farms .....	23
American Sod Association Stages First Field Day .....	26

#### Departments:

Editorial: Alert Your Customers .....	6
Insect Report .....	35
Know Your Species .....	36
Classifieds .....	37
Advertisers Index .....	37
Meeting Dates .....	38
Trimmings .....	38

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## Alert Your Customers

If you've been keeping up on the local news in your area, you know that the fly-by-night service artists are still in business. Not only are they operating, but it's your business image which suffers when they reap their cash award and move on.

Maybe now is a good time to alert your customers to the shoddy operation which promises much but cannot do a proficient job at the cut rate which attracts the business in the first place. You can use your local advertising outlets or your own direct mail piece. Perhaps you can handle a joint exposé promotion in cooperation with other legitimate operators.

Point out the guarantee of prompt service and quality work customers can expect from year-round, local businesses such as your own. Use examples of complaints which have made the local newspaper, radio, or TV outlets. Check on others from your Better Business Bureau. Likely, you can point to some of your own experiences where you have been called to correct a job.

Above all, point out the unique nature of service to vegetation, whether it be chemical applications, tree care, or other types of vegetation control. Results depend on time, whether a good or poor job is done. No customer can examine the chemical and judge its value. Nor can the customer judge the tree care job until it is done. In any case,

there is no second guessing. The fast buck artist has collected and moved on. By contrast, the local operator will still be in business, and not only will he be able but will expect to make the job right.

Warn your customers that vegetation maintenance and control practices vary from area to area. Local full-time operators know their area. They know the specific insects and diseases and the most effective related services to benefit the customer. Transient operators are unable to provide the experienced judgment needed for many local problems.

Despite the fact that local news media readily publicize the gyp operator, such transients still find work. Perhaps local operators need to speak with more force and do their promotion as a group. Customers need to be made to realize that shoddy tree care work cannot always be repaired, and when it can, it takes time. Shoddy spraying can wipe out years of landscaping effort for which the customer will have no recourse.

WEEDS TREES AND TURF is the national monthly magazine of urban/industrial vegetation maintenance, including turf management, weed and brush control, and tree care. Readers include "contract applicators," arborists, nurserymen, sod growers, and supervisory personnel with highway departments, railways, utilities, golf courses, and similar areas where vegetation must be enhanced or controlled. While the editors welcome contributions by qualified freelance writers, unsolicited manuscripts, unaccompanied by stamped, self-addressed envelopes, cannot be returned.

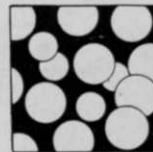
# MICROSOL®

## mechanical aerosol generator

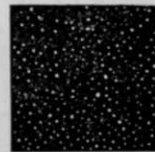
**EXTERMINATES — DISINFECTS — DEODORIZES — HUMIDIFIES**

New, exclusive development! Most efficient method of dispensing insecticides, germicides, deodorant formulations and chemicals for air-borne dissemination. The Microsol Model 202 produces aerosol size particles by a cold shearing process (high speed revolving discs ejecting radial films of liquid into a constant powerful axial air blast). Produces one billion lethal particles per second at spraying rate of 1000 cubic feet per 10 seconds, for the ultimate in insect, germ and odor control. Light, portable, efficient all-purpose machine is designed for inside use in areas up to 100,000 cubic feet; also effective outdoors on patios, terraces, etc. Fast, too! Treats average room (2000 cubic feet) in 20 seconds!

## KILLS BY PENETRATION



Ordinary Spray  
Particles



Microsol Spray  
Particles



Fly, Vinegar



Housefly



Bedbug



Weevil, Granary

### SPECIFICATIONS

LIQUID OUTPUT: Adjustable 0 to 5 gal. per hr.  
MOTOR: "Precision Built" fully enclosed Universal (AC-DC) 16,000 R.P.M., 115 Volt, 4 Amp., 1/4 H.P. Housing of aluminum alloy.  
DISPERSION HEAD: High speed, rotating, multiple disc, continuous head in center of constant powerful air blast.  
LIQUID CONTAINER: Aluminum—Capacity, 2 qts.

SWITCH: On-Off Toggle.  
FINISH: Fine gray wrinkle finish. Container polished.  
WEIGHT: 14 lbs.  
SIZE: Length, 20"; Width, 6"; Height, 8 1/2"  
WEIGHT PACKAGED: 18 lbs.  
SIZE PACKAGED: Length, 22 1/2"; Width, 8"; Height, 10 1/2".



MODEL  
**202**

### FEATURES

1. Cold process particle break-up (no heat or steam)
2. Instant operation (no waiting for heat or steam)
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4. Maximum kill per insecticide dollar
5. Complete coverage
6. Deep penetration — Microsol particles go wherever air in motion goes
7. Portability
8. Dependable long life



CATALOG SHEETS AVAILABLE — DEALER INQUIRIES INVITED

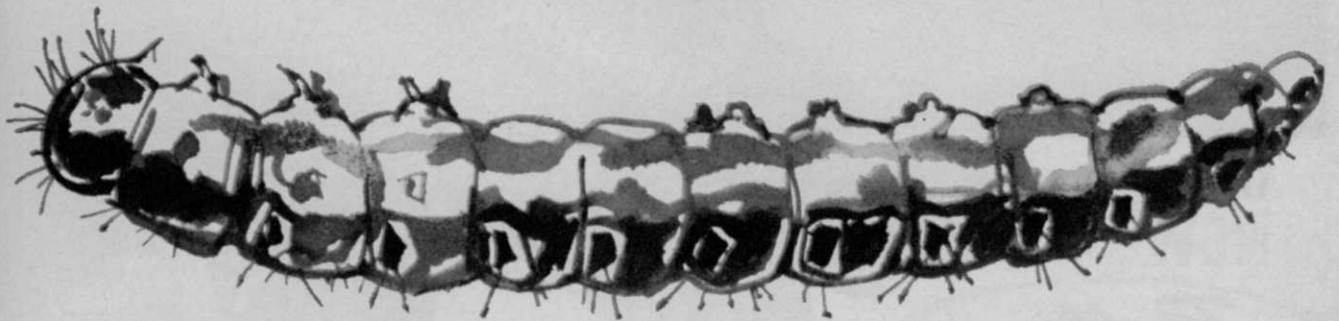
## SILVER CREEK PRECISION CORP.

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3 for the



money



Chinch bugs and sod webworms in any turf and eriophyid mites in Bermuda grass. All three get their comeuppance when you use Ethion. Ounce for ounce no chinch bug killer outperforms it; one application can control up to six weeks or longer.

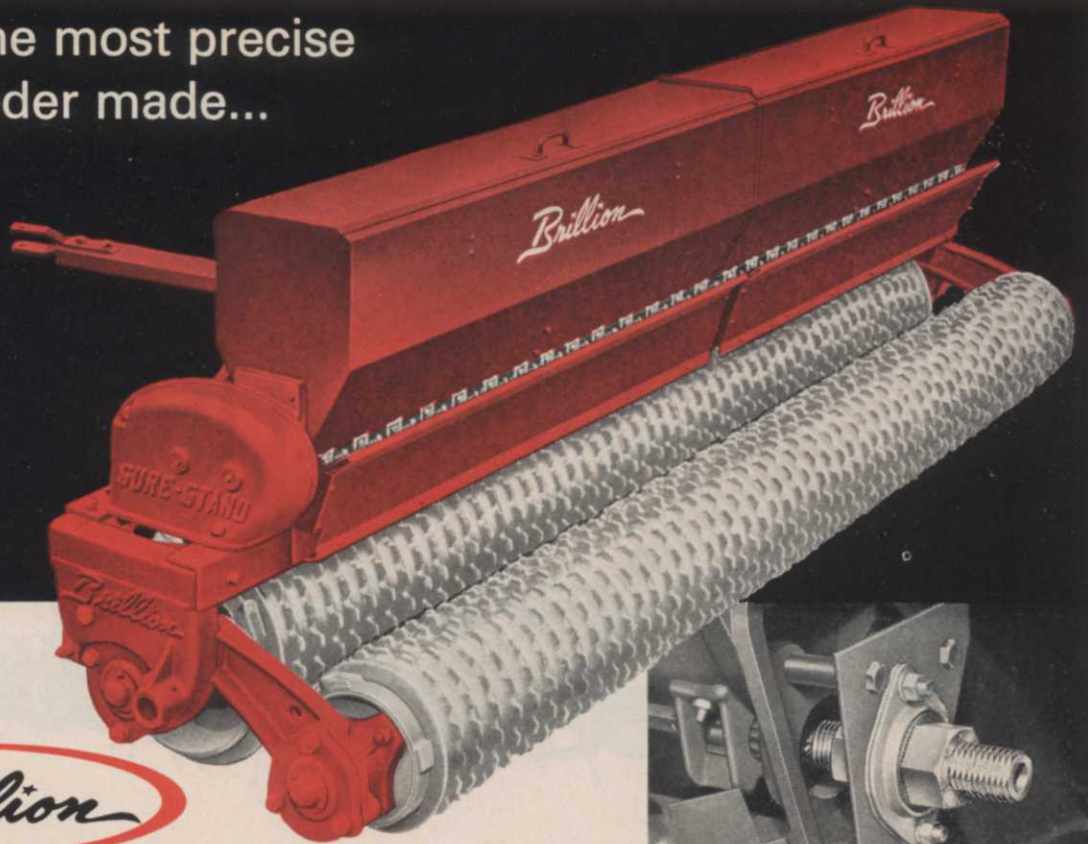
Ethion



FAIRFIELD CHEMICALS, NIAGARA CHEMICAL DIVISION, MIDDLEPORT, NEW YORK

*When Writing to Advertisers Please Mention WEEDS TREES AND TURF*

Here is the most precise  
grass seeder made...



the  
NEW

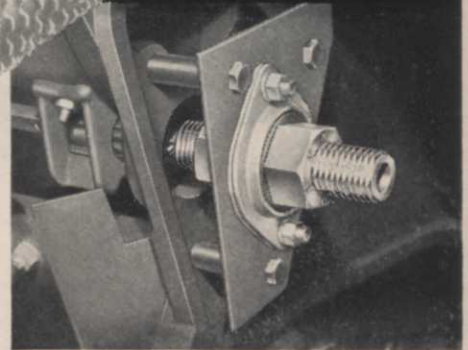


## TURF-MAKER with exclusive Micro-Meter adjustment

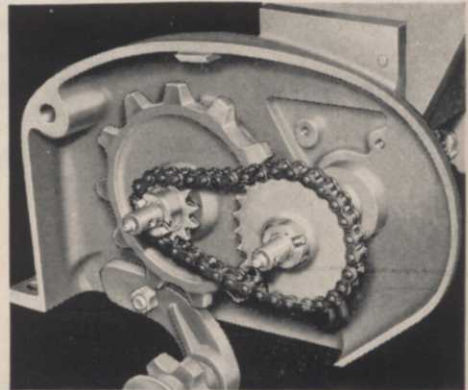
The Turf-Maker is the best money-maker available to professional landscapers, turfmen and sod growers. It combines ruggedness and Swiss watch calibration for precise seeding of the finest grasses and lawn mixtures over large areas — and assures full, thick stands at about half the seeding rates of conventional methods. Because it crushes, seeds and rolls in one operation, Turf-Maker enables one man to seed up to 50 acres per day without extra help, equipment or other seedbed conditioning.

Look at the exclusives. Brillion's unique Micro-Meter adjustment provides an infinite number of settings for precise metering of the finest seeds. The fluted feed rolls — one of the most accurate seeding mechanisms known — dole out even the tiniest seeds with miserly accuracy. Reversible two-speed sprockets give you an additional range of seeding rates to match any requirement. The specially designed and slightly offset notched wheels tuck the accurately metered seed into the top 1/2" of the gently-firmed, moisture-retaining seedbed for rapid germination and growth.

Turf-Maker is available in 8' and 10' seeding widths, with drawbars and 6 1/8 and 7 1/2 bushel seed boxes. Options include transport wheels for both sizes, and 3-point Category II pick-up for the 8' seeder. Buy Turf-Maker, the money-maker. Mail coupon for details.



MICRO-METER adjustment enables you to select the exact setting you want by aligning the markings on the adjusting nut and the shaft thread to correspond with settings on the seed rate chart.



SPROCKETS afford a dual range of seeding rates. Small sprocket on driver shaft (shown) is for lighter seeding. For heavier rate seeding, you simply reverse the mounting of the sprockets.



LANDSCAPE SEEDERS WITH A FUTURE — FOR YOU!

LS-91

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Please send information on the following:

- |   |                                  |
|---|----------------------------------|
| <input type="radio"/> New Turf-Maker                  | Name _____                       |
| <input type="radio"/> Landscape Seeders               | Address _____                    |
| <input type="radio"/> Grass-Legume Seeders            | City _____ State _____ Zip _____ |
| <input type="radio"/> Name of nearest Brillion dealer |                                  |
| <input type="radio"/> Landscape Tools                 |                                  |



# Select Street and Lawn Trees

*for site adaptability,  
minimum maintenance, and  
resistance to pollution,  
insects and disease*

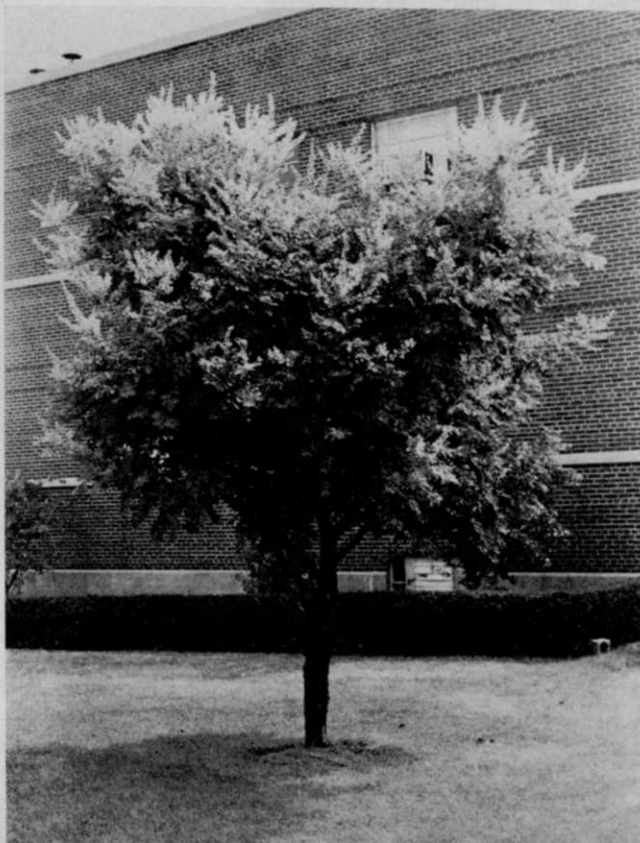
PEOPLE today expect beauty around them. Urban workers and dwellers tend to take for granted the greenery which is built into busy city streets and suburban areas for their comfort and either conscious or unconscious enjoyment.

Credit for reducing glare and softening hard building lines, breaking up the suburban landscapes, providing shade and multiple other uses must go to professional arborists and landscapers who understand the problem. Street and lawn trees often have to withstand pollution, lack of moisture, incredible summer heat, and generally adapt to artificial conditions. At the same time, the tree must have the size and proportion to contribute to its surroundings. It must stay within its territorial bounds, including root system, trunk, and canopy. Above all, the city tree must thrive. This is expected despite pruning to avoid overhead lines or other obstacles, lack of normal humus

**Golden-rain Tree, *Koelreuteria paniculata*.** Age, 15 years from seed; height 13.5 feet; diameter, 7.7 inches; crown spread, 16 feet. Located on OARDC campus, Gourley Hall.



**Sweet Gum, *Liquidambar styraciflua*.** Age, 16 years from seed; height, 21 feet; diameter, 4 inches; crown spread, 13 feet. Located on OARDC campus, Williams Hall.







**Texas Red Oak, *Quercus shumardii* var. *texana*.** Age, 19 years from seed; height, 31 feet; diameter, 12.1 inches; crown spread, 32 feet. Located on OARDC campus, Gourley Hall.



**Moraine Honey Locust, *Gleditsia triacanthos inermis* Moraine.** Plant patent 836. Age, 19 years; height, 32 feet; diameter, 7.3 inches; crown spread, 30 feet. Located on OARDC campus, Gourley Hall.

and mulch, and disrupted root areas.

No single tree can meet the many needs of a city. Trees of many forms and sizes are needed, some to beautify homes and parks, others for streets, and still others for highways leading into the central city. In recent years, the tendency has been to promote small trees which do not exceed 40' in height at maturity. The so-called forest giants are discounted because they interfere with walks and other city conveniences. However, when there is enough space, such trees provide more shade and sheer beauty than many of the smaller trees.

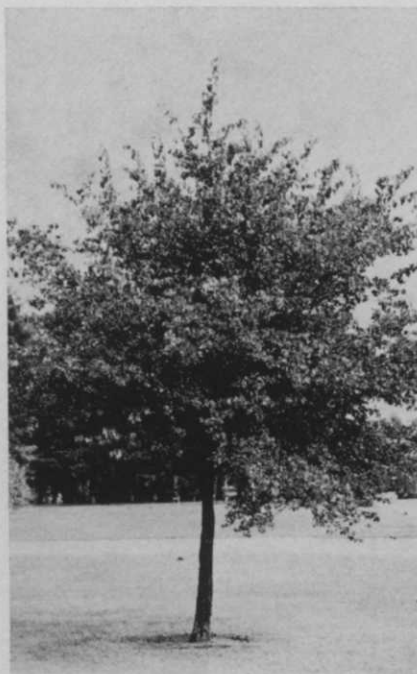
**Planting Site  
Governs Selection**

Naturally, the planting site must govern the selection of trees. Smaller species are recommended for planting under wires and to fit specific areas. Yet there are other factors equally important in selecting trees for yard or street. Such characteristics as form, hardiness, longevity, resistance to insects and disease, and soil requirements are mandatory.

A few trees, planted with these

factors in mind, have performed well at the Ohio Agricultural Research and Development Center for a period of years (see illustrations). These include selections of thornless honey

locust, Texas red oak, pin oak, sweet gum, ginkgo, little-leaf linden, and Washington hawthorn. Others of the newer cultivars of maples, oaks, lindens, and flowering trees could well be in-



**Washington Hawthorn, *Crataegus phaenopyrum*.** Age, 19 years from seed; height, 16 feet; diameter, 5.1 inches; crown spread, 16 feet. Located on OARDC campus, Gourley Hall.



**Little-leaf European Linden, *Tilia cordata*.** Age, 13 years from seed; height, 26 feet; diameter 8.4 inches; crown spread, 19 feet. Located on OARDC campus, Maintenance building.