

of Princeton Turf's sod farms, Cranbury, New Jersey.

Besides the Turfgrass Research Field Day and the equipment demonstrations, the day's activities will extend into the evening to include a dinner meeting and an informal round-table discussion of sod production problems.

In conjunction with these activities, the Northeast Branch of the American Society of Agronomy will be holding its annual Conference.

Interested sod producers from the United States and Canada or anyone with a new development in mechanization who may wish to have it demonstrated is welcome to participate. More detailed information on exhibit space or the program may be obtained by contacting Dr. Henry W. Indyk, College of Agriculture and Environmental Science, New Brunswick, N. J.

### Watch Trees for Fertilizer Deficiency Signs Snyder Says

Sparse foliage, weak new growth, and light green leaf color are all signs that point to need for more fertilizer, says Dr. Leon C. Snyder, head of the University of Minnesota Dept. of Horticultural Science.

Tree fertilization programs become more important, Snyder explains, when root zone areas are covered with paved driveways and sidewalks, limiting soil area in which tree roots can develop. Another factor which causes trees to require more fertilizer is fallen leaf removal. Normally dead leaves and branches would fall to the ground and decompose, renewing soil fertility. But landscaped areas are deprived of this source of tree food through grounds cleaning programs, Snyder reminded tree service people. He recommends early spring, or late fall tree fertilizing, once every three or four years.

"A complete fertilizer comparatively high in nitrogen such as 10-8-6 is good for evergreens, and a 10-10-10 analysis should be used for deciduous trees," Snyder says. As a general guide he suggests using 2 to 4 lbs. of complete fertilizer for each inch in

diameter of the trunk, measuring trees at breast height. Thus a 12-inch tree might require 24 to 48 lbs. of fertilizer, depending on soil and rate of desired growth.

Punch-bar application gets fertilizer close to feeding roots Snyder points out. Holes about 18 inches deep at intervals of 2 feet, in a band just under outermost branches, with about ¼ cup of fertilizer in each, and then filled with compost, give desired penetration he says.

### Entomologist Kerr Says Lawn Caterpillars Crop Up Quickly

Lawn caterpillars are easy kill but quite difficult to control reports associate entomologist Dr. Stratton Kerr of the Florida Agricultural Experiment Station.

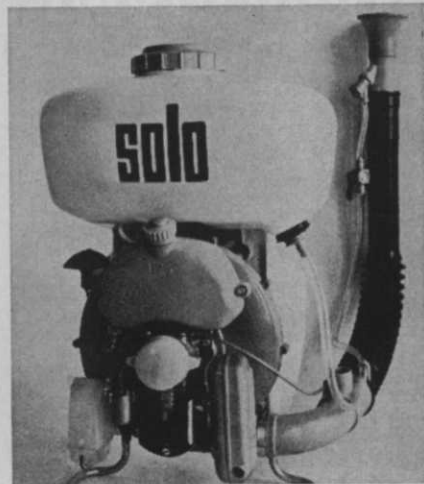
Kerr says the destructive infestations can crop up again as early as 3 weeks after lawn treatment. Lawn damage occurs when the caterpillars chew the blades down so grass has an extremely close-mowed appearance. The pest feeds on almost all common Florida lawn grasses.

Damaged areas appear first along hedges and flower beds. Then injury starts in a patchy distribution across the lawn, with injured spots being only about 2 or 3 feet across. The spots enlarge in heavy infestations, reaching a peak in the summer.

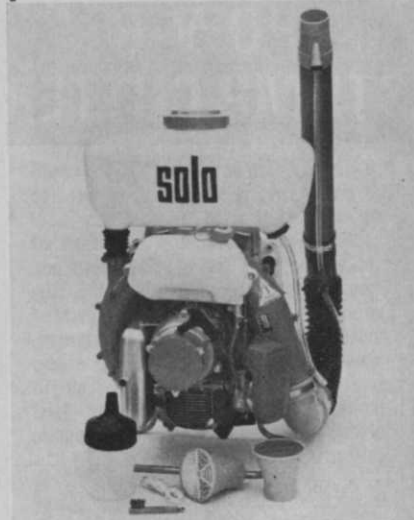
Control is complicated because the bugs feed up the grass blades instead of down on the runners like cinch bugs do. As the lawn is mowed insecticide is chopped off, reducing the total treated area. This means effective control requires applications of insecticide about every 3 to 4 weeks.

Dr. Kerr recommends Sevin and toxaphene as two of the better insecticides for lawn caterpillar control. Other effective controls he suggests are diazinon and DDT. He cautions that applicators should start as soon as an infestation is noticed because 5 or 6 days' delay gives the lawn pest time to do most of its damage. Control efforts will be wasted if they do not catch the lawn caterpillars right away, Kerr notes.

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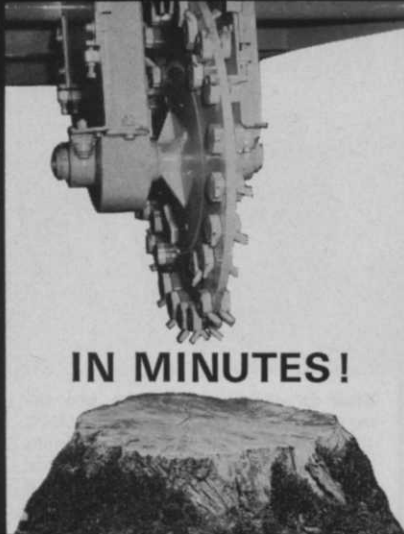


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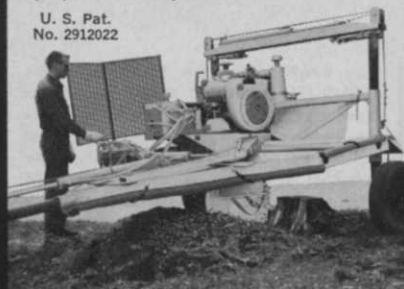


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## Hyman Lab Is Site For USFS, UC Research

One of the biggest challenges in the field of research in insecticides, discovery of effective substitutes for DDT and other chemicals, is now getting the joint attention of U. S. Forest Service and University of California scientists at Berkeley.

Leader of an insecticide evaluation project at the USFS Experiment Station in Berkeley, Dr. Arthur D. Moore, announced that USFS has leased lab facilities belonging to Dr. Julius Hyman, president, Hyman Laboratories, 2840 8th St., Berkeley.

Hyman, a chemist who was instrumental in finding and initially developing insecticides commonly referred to as aldrin, endrin, chlordane, and dieldrin, will counsel and work with the 25 Forest Service and some of the 17 UC scientists studying the problem.

Professor of Entomology at UC, Dr. John E. Casida, is directing graduate students and postdoctoral fellows with the University group. Some of the team began work at the Hyman lab early in April. Facilities include six chemical labs, a shop, stockroom library, and a pilot plant for chemical production.

### Seek Selective Chemicals

"Our immediate goal," Moore said, "is to develop chemical substitutes for DDT; chemicals that are highly selective against individual species of insects, and those that break down into harmless components without contaminating the environment."

A tree defoliator usually controlled by aerial applications of DDT, the spruce budworm, has already been effectively controlled with Zectran. A carbamate insecticide, Zectran is reported to be effective in small amounts, as little as 2 oz. per acre, and it breaks down in the environment.

Pyrethrum is another insecticide the research group finds promising for control of tree defoliators. It shows extreme toxicity to the insects and is one of the safest insecticides known for control of plant pests. The prob-

lem pyrethrum presents is that it is very unstable in air and sunlight. Dr. Casida believes a synergist may give pyrethrum stability until it reaches the pest, and for a brief period thereafter.

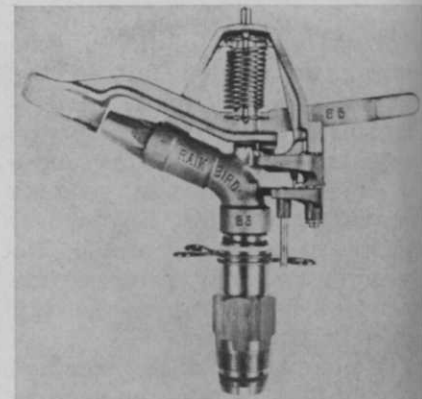
Although the group is concentrating on insecticides for use against forest pests, its basic research will apply to all phases of insect control.

## Florida Flood District Sees Growing Weed Control Costs

Sea cows, \$3,000 "Ducks," and \$229,173 spent for weed control last fiscal year are among weed control items covered in Central and Southern Florida Flood Control District's annual report for 1965.

Noting that sea cows (manatees) eat not only aquatic weeds, but even their roots, the publication explains the only problem encountered so far in the district's 3-year study as to feasibility of the animals for weed control is their slow reproduction rate.

Addition of many miles of new canals in the FCD created a need for more equipment. During the year, the district purchased two amphibious vehicles, known to the military as "Ducks," at a cost of just under \$3,000 each. The FCD uses the "Ducks" to tow heavy steel A-frames suspended by cable to the canal bottom for aquatic "plowing." Other measures the district's 20-man crew uses in the battle against weeds



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include chemical spraying from boats, trucks, and afoot, and mechanical mowing and chopping operations.

Cost of \$229,173 for weed control during the past fiscal year was almost \$70,000 over the district's 1963-64 figure of \$160,000, but the annual report points out that costs obviously increase each year as the FCD accepts more canals for operation and maintenance.

### Casoron Aq Granules Best When Used On Pond Bottoms

Test results on dichlobenil, registered in late 1965 as a pre-emergence aquatic herbicide by the U. S. Department of Agriculture, showed best results when it was used on exposed pond bottoms just after the spring thaw.

Presented in a report compiled by Illinois Natural History Survey Section of Aquatic Biology, the test findings indicate that the chemical is effective against sago pondweed, southern naiad, and chara.

Dichlobenil is sold by Thompson-Hayward Chemical Co. under the trade name Casoron Aq Granules. One formulation of Casoron is available as a heavy

aquatic granule containing 4% active ingredient or 4 lbs. of dichlobenil per 100 lbs. of granules.

This Casoron formulation is effective when applied either to the water or to an exposed pond bottom, though slightly higher rates may be required for water application, the survey report indicates. Effective control was achieved against aquatic plants when Casoron was applied as soon as the ground (pond bottoms) had thawed and by mid-March for application through water.

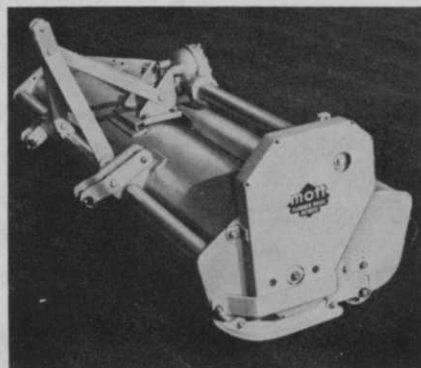
Included in the survey report, titled "The Chemical Control of Some Aquatic Plants," is a Thompson-Hayward listing of other water plants Casoron Aq Granules can be used against. Suggested application rates are also given.

For complete information on the tests write for Supplement No. 5, The Chemical Control of Some Aquatic Plants, Illinois Natural History Survey Section of Aquatic Biology, Urbana, Ill.

### Hudson Updates Catalog

New 20-foot spray booms with adjustable or fixed nozzle spacing are just one of the up-to-date listings in the H. D. Hudson catalog now available.

Introducing the company's over-the-road sprayers, special 150- and 200-gal. units fitted with accessories to adapt them for trailing over roads at normal speeds, the publication includes the company's complete Peerless Power sprayer and duster line. For a free copy write H. D. Hudson Mfg. Co., 589 E. Illinois St., Chicago, Ill. 60611.



Unitized construction is one of the built-in strong points of the new Mott "88" mower.

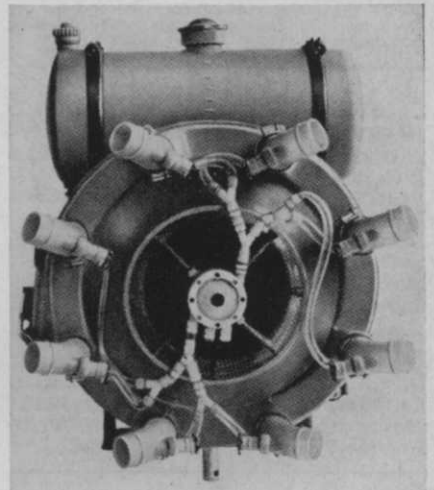
### Mott Introduces 88" Flail Mower

Rugged unitized construction, large diameter, a thick-walled tubular cutter shaft, and oversized bearings are features said to make the new Mott Model "88" ideally suited for heavy duty mowing.

Other strong points claimed for the new mower include a 60 hp. Timken roller bearing equipped gear box, a totally enclosed output drive shaft, and safety engineered guards. Roller adjusts height of cut from 1" to 6". Mounting is by 3-point hitch. Free-swinging knives fold back in the face of obstructions and automatically return to cutting position when clear, thus reducing danger of throwing struck object.

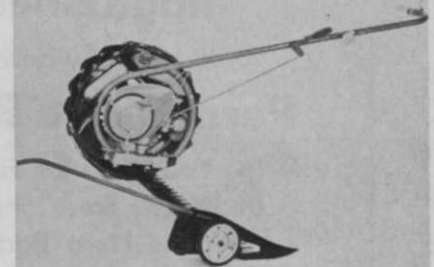
For complete information about the new model "88," write Mott Corp., 500 Shawmut Ave., LaGrange, Ill. 60525.

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### POSITION WANTED

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### Storage Danger Noted

Storage of volatile herbicides near fertilizer and other agricultural chemicals can result in crop injury, reports Dr. Kurt C. Feltner, agronomist, Kansas State University.

Dr. Feltner reminds spraymen that a volatile material is one

that can change rapidly from the liquid to the vapor phase. By doing so, it can move readily through the air and contaminate materials stored nearby, he warns.

### Scheu Introduces Portable Flamethrower

A quick-igniting flame that carries up to 25 ft. to burn off weeds, brush, or debris makes its new portable flamethrower lighting torch ideal for cleanup operations, according to Scheu Products Co.

A pressurized tank, with safety valve system and hose attached to hand gun, powers the flamethrower. For mobile use the operator can attach the tank to a tractor, jeep, or any truck or trailer flat bed.

The new trigger-controlled flamethrower has a runner mounted 25-gal. tank, 16 in. in diameter by 32 in. long. Total weight, with 10 ft. of hose and the gun, is 93 lbs. Write for complete information to Scheu Products Co., Bin 1, Upland, Calif.

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### Fine Soil Combination Unit Named Powerscreen 42

An assembly that combines a vibrating screen deck and an elevating conveyor to operate from one power source is now available from Royer Foundry & Machine Co.

Called the Powerscreen 42, the device is designed for preparation of uniformly fine, homogeneous, trash-free top dressing and planting mixtures.

Vibrating action of the screen is produced by an enclosed eccentric, transmitting 1600 cycles-per-minute. Eight coiled springs under the screen deck alternately

store and release this energy to achieve a smooth steady screen rhythm. The unit's over 17 sq. ft. of woven steel-wire screen surface pass processed soil directly onto an elevating conveyor. Utilizing a 16-inch wide troughing-type rubber belt, sealed to prevent leakage, the conveyor assembly extends 12 ft. for truck loading or stockpiling.

Power units available are either a 5 h.p. gasoline engine, or a 3 h.p. electric motor. For additional information on the new screen-conveyor combination, request bulletin PS-42 from Royer Foundry & Machine Co., Kingston, Pa.

### Outlines Betasan Data

An 8-page illustrated booklet describing weed control for lawns with Betasan, a selective preemergence herbicide, is now available.

Drawings of 9 annual weeds controlled by Betasan, and explanations of how the herbicide affects weeds at germination, are included in the information piece.

Titled "Betasan Control for Crabgrass and *Poa annua* in Greens and Turf," the publication has a table giving application rates and a special section on golf courses. Copies of the booklet are available from Stauffer Chemical Co., 380 Madison Ave., New York, N. Y. 10017.



Markal "B" makes a permanent, legible mark on both rough and smooth-bark trees, according to the producer. The paintstick is said to be effective in hot or cold, wet or dry weather. It comes in 10 colors, ideal for color coding. For a free sample write to Markal Co., 250 N. Washtenaw Ave., Chicago, Ill. 60612.

**Decided.** When officers of the Northeastern Weed Control Conference, who had just about decided the Astor Hotel in New York City was a mighty fine place to hold their annual meetings, learned the Astor would not be available in '67 because it was to be torn down, they set out to find another location. Some thought the conference should be held away from the Big City, but most agreed that Manhattan has overwhelming advantages to most delegates. Its easy accessibility, wide selection of eating places, and proximity to the headquarters of many chemical companies won out. The "search" committee decided upon the Hotel Commodore at 42nd and Lexington Avenues. Dates are January 4-6.

\* \* \*

**A break for CAs?** The upcoming pending amendments to the Fair Labor Standards Act will set increasing minimum wages for employees in firms using more than 500 man-days of labor in any quarter during the previous calendar year. No piece-work rates will be allowed which pay an employee less than the to-be-established minimums per hour. Also, the amendments will require payment of time and one half for overtime. This latter requirement may be a real backbreaker for contract applicators whose on-the-road service employees can pretty well pace themselves, and may have to juggle working hours to suit their clients. CAs should obtain legislative relief so that their men would be completely exempted from the overtime provisions on the basis that they work without supervision and sometimes are off in distant places, etc. We understand this same problem faces other "independent workers," such as routemen for soft drink manufacturers, and that well-organized companies in these fields are attempting to get the Labor Dept. to give them relief on this provision. The contract vegetation maintenance and control field should watch these developments carefully. Wouldn't it be nice if there were a national association of spraymen who could have a representative in Washington to speak for their interests?

\* \* \*

**"Biggest Ever."** Another record-breaking convention is coming up, this one by the American Association of Nurserymen at the Palmer House in Chicago, July 16-20. General convention chairman, Elmer Palmgren, says they'll have the largest exhibit of commercial products in history. The formal program is centered around "Management Opportunities"—understanding insurance, how to sell better, how to handle credit, what customers want, etc. And, of course, there'll be the past presidents' banquet and dance with headline entertainment.

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