

The Growing Commercial Market

NO ONE will argue that the cost of materials and labor is climbing at an alarming rate. But is the chain saw industry's growth rate keeping pace?

"The growth rate is tapering off," said Frank McDonald, Pioneer product manager, "but only when measured against the phenomenal 25 to 35 percent annual sales upsurge experienced industry-wide since 1972."

He predicts gasoline-driven chain saws will increase 13 percent this year in North America to 1.7 million units. The farm, professional and commercial segments of the market are expected to increase 10, 5 and 8 percent respectively.

McDonald, also a director of the Power Saw Manufacturers Association, estimates 90,000 saws will be sold this year in the commercial market compared to 72,000 units in 1972.

However, unit sales to the commercial market were down slightly in early 1975 compared to a similar period a year earlier. McDonald attributed the decline to the economic slump and high unemployment, but said marketing research studies project a rebound before the key fall buying season.

The key period will be four months beginning in September when an estimated 51 percent of industry-wide sales are expected to be recorded.

Commercial unit sales this year are expected to constitute almost 7 percent of the North American chain saw business. Because commercial saws are operated in work-a-day conditions, the average commercial saw is replaced at least once every 2 years at \$190 minimum.

"The commercial market is a slowly growing segment of the business, but it is dependable and maintains a steady upward curve," McDonald said. "Growth in the commercial field will be influenced by replacement

sales plus an increase in the variety of new chain saw uses that are constantly cropping up in the commercial field."

McDonald sees the industry-wide growth as sparked by the high-volume consumer market, which was first penetrated in 1971 with the advent of saws selling under \$140. Low-priced saws enabled consumers to discover the utilitarian value of chain saws around the home, but there is evidence the casual market pipeline is filling up.

A chain saw can last a homeowner a lifetime if he only uses it once or twice a year to cut firewood or trim trees. "That's why the tremendous growth is peaking out. The replacement business isn't as significant as in the commercial segment," said McDonald.

The news from 1974 was good and 1975 looks even better, according to Don Bartelt, general sales manager of the Echo Chain Saw Division of Kioritz Corp. "Our sales were up nearly 200 percent over 1973," Bartelt said. "In 1973 we grew 113 percent."

WEEDS TREES AND TURF recently completed the 1975 Golf Course Market Study and found that the 9,300 golf course superintendents own an average of 1.8 chain saws. Most experts agree that chain saws purchased by superintendents fall within the commercial market.

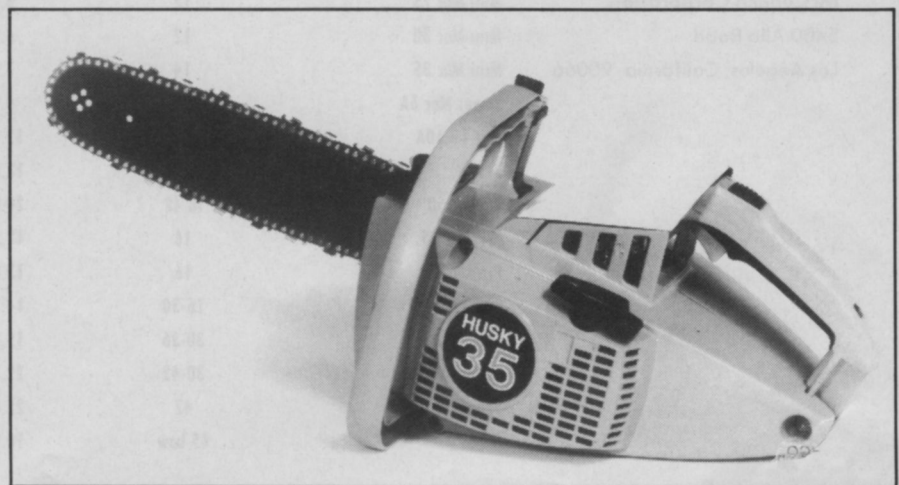
WEEDS TREES AND TURF also polled leaders in the chain saw industry. We asked the manufacturers to describe their 1975 market forecast. Most respondents agreed that supplies were sufficient to meet market demand. Early 1975 sales indicators were split evenly between steady and down. Only one respondent indicated an upward trend in sales.

We also asked the manufacturers to compare their profit outlook for 1975 to their 1974 net. Most respondents indicated an unchanged profit picture from 1974. □

"The New Chain Saw for the Handyman" is the slogan Husqvarna, Inc. has put on the new Husky 35 Chain Saw, priced at \$124.95 and featuring a Phelon ignition and Tillotson all-position carburetor. Another feature is automatic oiling with a manual over-ride. The Husky 35 weighs under seven pounds and has a 2.2 cubic inch, two-cycle engine. Bar lengths are available from 10 to 16 inches. All components are said to be easily accessible under the protective casings, making the chain saw easy to service. Top filling gas and oil caps offer ease in maintenance, according to the manufacturer, and the new chain saw has more gas and fuel capacity over the Husky 22. A recessed starter housing enables the owner to start the saw with ease. A new air direction baffle is said to keep the engine running quieter at a

cooler temperature and there is more room to grip the rear handle with work gloves. According to the manufacturer, the Husky was designed with inexperienced users in

mind. The tank and front section are extended to prevent fingers from coming in contact with the chain while sawing. **For more details, circle No. 712 on the reply card.**



No. 712

THE 1975 CHAIN SAWS

Manufacturer	Model No.	Bar Length (Inches)	Weight (Lbs.)	Engine Size (CID)	Chain (Brand)	Retail Price
Allis-Chalmers P.O. Box 512 Milwaukee, Wisconsin	75	14	8.5	2.1	—	—
	75A	14	8.5	2.1	—	—
	95	17	13.75	3.6	—	—
	195	17	12.5	3.6	—	—
	295	17	12.5	3.6	—	—
John Deere John Deere Road Moline, Illinois 61265	61	10	6.75	2.1	Sabre	\$109.95
	81	12	6.75	2.1	Sabre	134.95
	81 (Elec. Start)	14	8.5	2.1	Sabre	169.95
	91	14	6.75	2.1	Sabre	142.95
	14	15	10.0	2.8	Sabre	192.95
	18	17	13.0	3.6	Sabre	212.95
	19	19	13.0	4.0	Sabre	262.95
	23	21	15.5	5.0	Sabre	316.95
				(Less Guide Bar)		
	23	23	15.5	5.0	Sabre	331.95
			(Less Guide Bar)			
Dolmar Maschinen Fabrik 947 W. Foothill Boulevard Monrovia, California 91016	118	15-24	13.0	2.7	Dolmar	256.46
	122	17-30	16.0	3.8	Dolmar	319.54
	144	17-36	19.0	5.5	Dolmar	363.22
	CT	21-60	23.0	7.4	Dolmar	497.86
Frontier Division	Mk1 Automatic	12	6.6	2.2	Sabre	129.95
Quadra Manufacturing, Inc.	Mk1 Anti-Vibe	12	7.2	2.2	Sabre	149.95
P.O. Box 491 Trail, B. C. Canada						
Kioritz Corporation of America 350 Wainwright Avenue Northbrook, Illinois 60062	CS302	14	8.1	1.83	Oregon	159.95
	CS60S	20	15.4	3.75	Oregon	264.95
	CS451VL	16	11.4	2.7	Oregon	219.95
	CS601SVL	20	14.5	3.7	Oregon	299.95
	CS701SVL	24	14.7	4.31	Oregon	324.95
	CS601S	20	15.0	3.7	Oregon	284.95
McCulloch Corporation 5400 Alla Road Los Angeles, California 90066	Mini Mac 25	12	6.9	1.8	McCulloch	109.95
	Mini Mac 30	12	6.9	1.8	McCulloch	119.95
	Mini Mac 35	14	7.1	2.0	McCulloch	139.95
	Power Mac 6A	14	6.9	2.0	McCulloch	169.95
	Mac 10-10A	16	12.4	3.3	McCulloch	209.95
	7-10A	to 28	13.0	4.3	McCulloch	319.95
	Super 250	to 42	20.8	5.3	McCulloch	299.95
	Pro Mac 55	16	12.5	3.5	McCulloch	239.95
	Pro Mac 60	16	13.0	5.8	McCulloch	289.95
	Super Pro 60	16-30	14.7	3.8	McCulloch	299.95
	Super Pro 81	30-36	15.5	5.0	McCulloch	369.95
	Super Pro 105	30-42	22.3	6.5	McCulloch	419.95
	Super Pro 125C	42	22.6	7.5	McCulloch	499.95
	G-70	15 bow	16.9	4.3	McCulloch	359.95

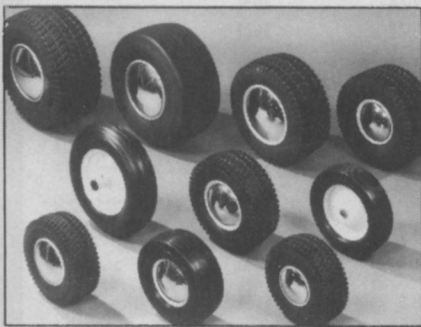
Manufacturer	Model No.	Bar Length (Inches)	Weight (Lbs.)	Engine Size (CID)	Chain (Brand)	Retail Price
Milwaukee Electric Tool Corp. 13135 West Lisbon Road Brookfield, Wisconsin 53005	6205 Electric	16	17.5	2 h.p.	Windsor	169.00
	6206 Electric	20	18.5	2 h.p.	Windsor	179.00
New Draulics, Inc. 2252 So. 3600 W. Salt Lake City, Utah 84119	AHS-0-C9	—	6.0	Hydraulic	Windsor	325.00
	AHS-0-C12	—	6.5	Hydraulic	Windsor	335.00
	APS-0-3N-C9	—	7.75	Hydraulic	Windsor	340.00
	APS-0-3N-C12	—	8.0	Hydraulic	Windsor	355.00
	APS-0-4N-C9	—	8.1	Hydraulic	Windsor	345.00
	APS-0-4N-C12	—	8.5	Hydraulic	Windsor	360.00
	APS-0-5N-C9	—	8.5	Hydraulic	Windsor	350.00
	APS-0-5N-C12	—	8.75	Hydraulic	Windsor	365.00
	APS-0-6N-C9	—	8.9	Hydraulic	Windsor	355.00
	APS-0-6N-C12	—	9.1	Hydraulic	Windsor	370.00
Pioneer Chain Saws Box No. 82409 Lincoln, Nebraska 68501	P20	14	10.3	3.14	Pioneer	169.95
	P25	16	10.4	3.14	Pioneer	184.95
	1200A	16-24	13.3	3.546	Pioneer	229.95
	P40	16-28	14.0	4.0	Pioneer	289.95
	P50	16-36	16.5	5.0	Pioneer	329.95
Stanley Hydraulic Tools 13770 S. E. Ambler Road Clackamas, Oregon 97015	7H	12	6.0	Hydraulic	Oregon	—
	7H	15	7.0	Hydraulic	Oregon	424.00
	7H	18	8.0	Hydraulic	Oregon	450.00
Skil Corporation 5033 Elston Avenue Chicago, Illinois 60630	1610	12	7.6	2.2		134.99
	1612	16	7.6	2.2		144.99
	1631	16	13.5	4.2		219.95
	1645	16	13.5	4.2		244.95
	1601 (Electric)	12	8.5	12 amp		89.99
	1602 (Electric)	14	8.5	13 amp		109.95
Stihl American 107 Bauer Drive Oakland, New Jersey 07436	015	10-12	7.5	1.9	Stihl	—
	020AV	12-16	8.0	2.0	Stihl	—
	020AV/P	12-16	8.25	2.0	Stihl	—
	031AV	14-25	11.5	2.95	Stihl	—
	08S	13-15	13.5	3.4	Stihl	—
	041	13-25	12.0	3.72	Stihl	—
	041AV	13-25	12.5	3.72	Stihl	—
	041AVE	13-25	12.5	3.72	Stihl	—
	041G	13-25	15.0	3.72	Stihl	—
	045AV	13-25	—	4.6	Stihl	—
	051AV	17-32	18.5	5.5	Stihl	—
	070	17-41	22.5	6.5	Stihl	—
	075AVE	21-60	21.0	6.7	Stihl	—
	090G	17-41	26.0	6.5	Stihl	—
	090	17-41	23.5	8.5	Stihl	—
	E-10 (Electric)	10, 12	8.8	—	Stihl	—
E-15 (Electric)	13, 17, 20	18 w/13"	2.6 h.p.	Stihl	—	
E-30 (Electric)	to 60	30 w/17"	3.7 h.p.	Stihl	—	

New Products



STUMP REMOVER: Full Vision, Inc. has introduced its Eager Beaver stump remover that is said to remove a stump in 15 to 30 minutes, depending on diameter, coarseness and dryness of stump. The quick-change blade has six carbide cutting points that attack the stump simultaneously at three cutting levels, and can excavate the stump up to eight inches below ground level. Eager Beaver's features include a locking kickstand for operator and blade protection, a flexible safety shield that encircles the cutting area, a protective screen that covers the top and handles that pivot over the main body for compact transportation. The 180-lb. unit is powered by an 8 hp four-cycle engine with controls located on the handle.

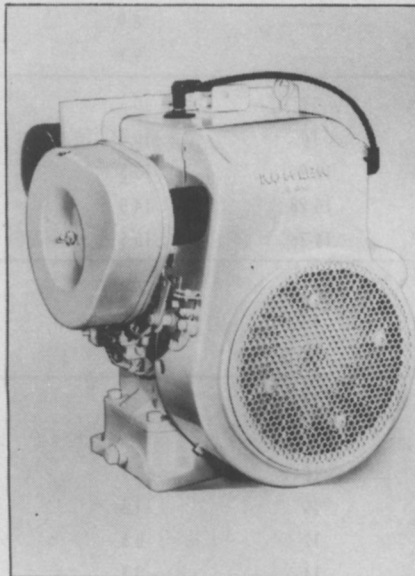
Circle No. 175 on the reply card.



PNEUMATIC TIRES: Zedron, Inc. has introduced its Dura-Tech tire for use on compact tractors, riding mowers, snow throwers and other terrain and utility vehicles. According to the manu-

facturer, Dura-Tech's single component construction is an engineering breakthrough in tire design and elastomer technology. The pneumatic tire is a homogenous, one-piece continuous airtight structure made from a strong thermoplastic elastomer compound. Manufacture of the Dura-Tech tire, which does not use wire beads and fabric cords, is said to require 40 to 60 percent less raw materials than the conventional tire. Dura-Tech is available in a variety of colors and is totally recyclable.

Circle No. 708 on the reply card.



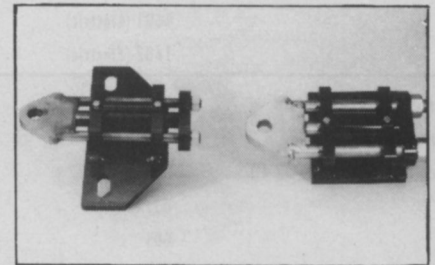
QUIET-PLUS ENGINES: Kohler Co. has a new "Quiet-Plus" line of engines designed to reduce engine sound levels. The seven models, modified versions of standard Kohler engines, include one- and two-cylinder models and range from 7.5 to 22 hp. The Quiet-Plus models have a special shrouding to adapt them for closed compartment installations — under garden tractor hoods or enclosed in the bodies of golf or utility cars — and an improved cooling fan which forces a high volume of air over the engine. Sound level is reduced mainly by subduing exhaust and air intake noise with a high-efficiency muffler and carburetor intake system that draws air from within the shrouding. Other features include asymmetric blade spacing on cooling fan to reduce fan noise, universal access on shroud for Bowden wires to choke and throttle controls and internally-vented crankcase breather which reduces emissions of unburned hydrocarbons. At speeds up to 2400 RPM, Quiet-Plus engines have the same output as standard Kohler models.

Circle No. 709 on the reply card.



DRY APPLICATION SYSTEM, A new 280 cu. ft. Auger Boom System (ABS) from Ag-Chem Equipment Co., Inc. is said to provide accurate application of any dry, flowable material. The new three-boom system (left, right and center) helps eliminate any uneven spreading caused by differences in particle size, weight and ballistic characteristics. According to the manufacturer, the System, which can apply 70 to 1200 pounds per acre, will provide uniform application of mixed material from 3/4 inch diameter down to a powder. Dual function 360 degree swivel markers at the end of the 18-foot booms eliminate guesswork. Hydraulic boom operation is controlled from the cab. A Servo-system electronic sensing eliminates the need to hold the vehicle speed constant. Electronic system gives plus or minus two percent accuracy at spreading speeds up to 20 miles per hour.

Circle No. 710 on the reply card.



HITCHES: Superflex Hitches is introducing a complete line of shock-absorbing hitches including models that can be mounted on cars, trucks or tractors. All models are designed with a polyurethane cushion that acts like a shock absorber to remove the tugging, swaying or jerking caused by trailing loads. Interchangeable cushions are available for different load capacities, allowing the same hitch to be adapted to the specific job at hand. The truck and tractor models are said to support the heaviest of equipment. According to the manufacturer, the hitches are constructed to give a lifetime of safe service without maintenance, and are priced economically with an unconditional guarantee.

Circle No. 711 on the reply card.

Classifieds

When answering ads where box number only is given, please address as follows: Box number, c/o Weeds Trees and Turf, 9800 Detroit Ave., Cleveland, Ohio 44102.

Rates: All classifications 50¢ per word. Box number, \$1. All classified ads must be received by Publisher the 10th of the month preceding publication date and be accompanied by cash or money order covering full payment.

FOR SALE

ARPS stump cutter teeth, top quality and best price in U.S.A., D. J. Andrews, Inc., 17 Silver St., Rochester, New York 14611. Call 716 235-1230.

FOR SALE 10 tree trimming trucks with man cabs and dump bodies. 2-12" chippers and a various assortment of tree trimming tools. 1 Trailer mounted mist blower. Novosel's Tree and Landscape Service, Inc., Phone 412 543-9501.

USED EQUIPMENT

52 FOOT HI-RANGER 1969 cab guard-steel deck, like new, M & M 12" chipper. 1971 Chev. 2 ton Chip truck, 14' bed, equipment in A-1 condition. Package deal \$26,500.00. Pueblo Tree Service (Robert J. Kennedy, owner), 510 Van Buren, Pueblo, Colorado 81004. Phone 303 542-3532.

1972 FLECO 26" tree shear, \$4500.00. Jim Green, Ohio Chipper & Equipment Company, Div. of Osborne Brothers Tree Service, Mentor, Ohio 216 951-4355.

BEAN ROTO-MIST-100, like new, under 100 hours. 300 gallon stainless steel tank, only \$5,500. Cheshire Tree Service, Cheshire, Conn. 06410. Phone 203 272-0391.

VERMEER STUMP CUTTER, model 10, excellent condition, new engine, \$3,500.00, Shearer Tree Surgeons, 300 Basin Rd., Trenton, New Jersey 08619. Phone 609 924-2800.

STUMP grinder log splitters, chippers, sprayers, bucket trucks, all reconditioned; let us know your needs, Esco, 5620 Old Sunrise Highway, Masspequa, New York 11758. Phone 516 799-7619.

3 AND 5 GANG Jacobsen blitzer mowers good condition. Schneider Sod Farm, 4750 South 24th St., Quincy, Ill. 62301. Phone 217 224-1893.

FOR SALE: 7 Gang Roseman mowers sharpen, repainted \$950. — 18" Ryan sod cutter roll Ryder \$750. — Wanted OC6 crawler. Phone 414 326-5267.

1971 JACOBSEN F-10 tractor with seven mower units, 1205 hours, \$5500. Steve Linville, 3656 Hiawatha, Forth Wayne, Indiana 46809. Phone 219 747-3044.

VERMEER 700TM tree mover on 1966 Chevrolet truck, 6,000 miles. Quick Shade, R6, Warsaw, Indiana 46580. Phone 219 267-3970.

FOR SALE — One used Brouwer sod harvester. Phone 1 416 476-4311.

SEEDS

SOD QUALITY Seeds Merion, Fylking, Delta, Park, Newport, Nugget, Adelphi, Cheri, Glade and Baron bluegrasses also fine fescues. Manhattan rye grass. Custom mixing available. Michigan State Seed Co., Grand Ledge, Michigan 48837. Phone 517 627-2164.

HELP WANTED

DISTRIBUTORS for D. J. Andrews, Inc. stump cutter teeth, pockets and bolts. Best wholesale and retail price in U.S.A. Add to this exclusive area, local advertising at our expense, etc., and you have our story. D. J. Andrews, Inc., 17 Silver St., Rochester, N.Y. 14611. Call 716 235-1230, or 716 436-1515.

PROFESSIONAL POSITION OPEN — Landscape design and sales, must be college trained and at least 5 years experience in the residential and light commercial field. Excellent opportunity for the aggressive person. Will match your existing salary plus more if you qualify. Contact F. R. Micha, Monroe Tree & Landscape, Inc., 225 Ballantyne Road, Rochester, New York 14623

MAN TO WORK AND MANAGE all phases of tree and spray business in Michigan. Salary open. Please send resume, salary requirements, and any questions to Box 129, Weeds, Trees and Turf, 9800 Detroit Ave., Cleveland, Ohio 44102.

MISCELLANEOUS

TREE APPRAISALS, Surveys, loss evaluations and expert consultation services. For names of members of the American Society of Consulting Arborists, Inc., throughout the country, contact: Executive Director ASCA, 12 Lakeview Ave., Milltown, New Jersey 08850.

PUGET SOUND TREE SERVICE, INC., 1111 No. 98th St., Seattle, Washington 98103, Stump Chipper Teeth and pockets for the Northwest. Phone 206 523-2240.

EDUCATION-BOOKS

AUTOMATIC IRRIGATION COURSE. Sprinkler heads, remote control valves, controllers, vacuum breakers, precipitation rates, etc. all variations covered. System design, installation, operation, maintenance. Send for free course out-line. Larson Company, P.O. Box 4453, Santa Barbara, Ca. 93103.

Advertisers

Adelphi Kentucky Bluegrass	24
Agro-Chem, Inc.	26
Bio de-Thatch, Inc.	23
Bowie Industries	37
Bunton Company	26
E. F. Burlingham & Sons	40
Century Engineering Corp.	31
Charles Machine Works, Inc.	33
Diamond Shamrock Chemical Co.	52
Dow Chemical Co.	2nd cover
E. I. duPont de Nemours & Co., Inc.	17
Elanco Products	10-11
Fine Fescue Commission	18
FMC Corp., Sidewinder Plant	8
Full Vision, Inc.	54
Goshen Mfg. Co.	57
Granberg Ind.	48
Hercules, Inc.	22, 27, 31, 42, 50, 51, 57, 65
Jacklin Seed Co.	32
Jacobsen Mfg. Co.	3rd cover
Kay-Fries Chemical Co.	7
Lawn Maker, Inc.	36
Lindig Mfg. Co.	42
Lofts Pedigreed Seed Co.	4th cover
Manhattan Ryegrass Growers Assn.	59
Northrup King, Co., Aquila Parade	38-39
Pennwalt Corp.	22
Princeton Mfg. Co.	28
Rain Bird Sprinkler Corp.	3
Reinco, Inc.	58
Rhodia, Inc., Chipman Div.	4-5, 20-21
Skil Corp.	55
Smithco, Inc.	60
Stihl American, Inc.	44
Swift Chemical Co.	34-35
Tee-2-Green Corp.	9
Thompson Hayward Co.	29
Tuco Div., Upjohn Co.	12
U.S. Gypsum Co.	25
Vermeer Mfg. Co.	56
Vicon Farm Machinery	41
Warren's Turf Nursery	41

Connecticut Scientists Study Efficiency of Photosynthesis

Connecticut scientists are working to keep plants from wasting the sun's energy.

Research at the Agricultural Experiment Station in New Haven, Conn., are studying photosynthesis and are trying to produce more efficient plant varieties. Israel Zelitch, chief of the Station's Biochemistry Department estimates that some crop yields could be increased 50 percent by reducing excessive respiration. Station scientists are studying the chemical mediators that regulate the processes of respiration in plants. "Some of this respiration is essential, but a considerable part is wasteful and could be eliminated," Zelitch said.



Agway bags it!

NITROFORM*
organic nitrogen



The dependable organic that's 38% N so you can apply it less often. Try it.

Turf and Horticultural Products, Synthetics Dept.
Wilmington, Delaware 19899
Registered trademark of Hercules Incorporated. 5TH74-2AR

For More Details Circle (135) on Reply Card

Trimnings

Ancient remedies and several new discoveries of natural insecticide compounds derived from plants are reviewed in a new book issued by the U. S. Department of Agriculture (USDA). For example, a substance extracted from the leaves of the chinaberry tree kills corn earworms and fall armyworms. Some plants also contain compounds effective against insects that do not attack plants. In one study, scientists killed several species of ticks in less than four minutes by exposing the pests to powdered garlic. Other researchers found that cardol and anacardic acid from the nutshells of cashews killed mosquito larvae as well as grain weevils and caterpillars. English ivy leaves have been used since antiquity to destroy vermin of the body. An extract of the ivy bark, used as a spray, failed to kill house flies or yellow fever mosquitoes. Altogether, more than 500 studies conducted between 1954 and 1971 are reviewed. Copies of the Agriculture Handbook No. 461, "Insecticides From Plants," are available for \$2 each from the Superintendent of Documents, U. S. Government Printing Office, Washington, D.C. 20402.

The January monthly fertilizer tonnage report issued by the University of Missouri-Columbia shows a total of 1,739 tons of non-farm fertilizer shipped. Total shipment for fiscal year 1974-75 was 608,259 tons.

Is the real thing better than a photo? Who actually gets more out of a situation — the person who sees it first-hand or one who views it in a photograph or slide? There's really not much difference, according to a recent U. S. Forest Service Study, if the photograph shows the entire scene. Three groups of respondents were tested. One saw the actual scenes, another viewed color slides and a third saw color photos. Reactions were recorded on a set of adjective scales and compared both graphically and statistically. The

researchers found that a scene with "natural" content elicited similar on-and-off site responses. So the next time you're sitting in on an educational session and the speaker turns off the lights and flips on the slide projector just remember that it's almost as nice as being there in person.

An outdoor pest control program aimed at controlling the dreaded malaria mosquito has been launched by USDA scientists in El Salvador. Using the sterile male technique, scientists hope to release sterile males into the natural population in such large numbers that they, and not the virile males, mate with a large portion of the females. If the area is large enough or isolated to keep immigration of fertile insects at a minimum, no progeny develop. Thus insect populations are drastically reduced and the disease transmission cycle interrupted. According to present plans, the study will run for 2-and-one-half years. The first year will be devoted to preliminary studies of mosquito biology, working out techniques, establishing a mosquito colony, training nationals to operate the program and in general getting the essentials of the program underway. The full scale program will go into effect the second year.

Taking the stink out of composting sewage sludge are a couple of ARS researchers, Dr. Eliot Epstein and George B. Wilson. Their technique involves controlled aeration from beneath the sludge, pulling interior temperatures up from a minimum of 130 degrees F to as high as 185 degrees F. Woodchips are mixed with the sludge at a ratio of three parts chips to one part sludge before composting to improve drafting through the pile. Each pile is covered with a blanket of pre-dried screened sludge compost which prevents odors from escaping to the atmosphere. The cover of screened compost is also an insulating layer providing more uni-

form temperature distribution throughout the pile. Previous studies showed that temperatures obtained by this composting technique kill most human pathogens. Additional studies are being conducted on virus and bacterial survival during composting. Past experiments in composting sludge brought protest from nearby citizens and passing motorists.

Converted air pollution monitoring equipment is being used by a crop physiologist in the Institute of Agriculture and Natural Resources of the University of Nebraska to identify an effective herbicide and show how it works. Dr. Lowell Klepper has modified an early model monitoring devise and is using it to monitor nitrogen dioxide gas given off by a leaf of a plant treated with an herbicide. With his equipment, one person can test 50 chemicals per day for herbicidal action. Commercial tests now take several days for each chemical, he said. The souped-up monitor can also measure herbicide penetration.

Okay, we all know about insect sex attractants. And we know some insects give off chemical signals that turn off certain unwanted suitors. But now scientists are using these facts to develop additional alternatives to pesticides for insect pest control. Control strategies are possible in two directions — attractions and inhibition or disruption. First of all, the synthetic pheromone may be used to attract insects to a bait laced with small amounts of pesticides in a trap. Another is using the attractant to confuse — an area permeated with the pheromone so males cannot tell exactly where females are. These studies and others will determine the effectiveness of male trapping in population suppression and will be used to evaluate the effect of migration and other factors in any future control program.



Now here's a mower.

This 9-gang giant will take on the biggest mowing job you have and breeze right through it.

Grady Hassell can tell you about it. He's with Lawn & Turf, Inc. in Conyers, Georgia.

As a Jacobsen Distributor he has all the answers about Jacobsen equipment. Like the huge F20 9-gang mower.

He'll tell you that it cuts a wide 19-foot swath. It has a gargantuan appetite that can cut through 76 acres in one work day. And that's mowing at a realistic pace.

But it's easily tamed for more delicate chores because the operator can raise and lower any of the reels with a fingertip control. Things like median strips can be mowed from the road shoulder with the outboard reels, for example.

Just because it's big doesn't mean it's clumsy. Far from it.

There's a ground-gripping front drive that gives sure traction on grades and sidehills.

And the rear wheel steering means that the reels turn in the same arc as the steering wheels. No skidding, no skipping, no uneven cutting in the turns. And no wheel streaks in the straightaways, either.

If you have big mowing chores ahead of you, ask your Jacobsen Distributor about how the mighty F20 can help you. An actual demonstration ought to raise your eyebrows a couple of notches.

And you might even find yourself saying, "Now here's a mower."

Your Jacobsen Distributors.

Before we sell it, we buy it.

For the name of the distributor near you write: Jacobsen Turf Distributor Directory, 1721 Packard Avenue, Racine, Wisconsin 53403.

For More Details Circle (116) on Reply Card