

THE FORD DIFFERENCE

MAINTENANCE ADVANTAGES
THAT GIVE YOU LESS
DOWNTIME, MORE TIME
ON THE JOB.



Fact: Ford industrial tractors call for far less maintenance than some competitive rigs.

Look at the operator's manuals. Some manufacturers recommend oil changes as frequently as every 100 hours. Ford gives you a whopping edge: 300 hours is our recommended interval between oil changes.* Our

recommended interval between transmission oil changes is 1,200 hours. That's 200 hours longer than some other rigs.

Look at this advantage: some tractors call for daily greasing. Ford recommends greasing at intervals of 50 hours.

Ford maintenance advantages. They mean less

time stopped for lubrication—more jobs done at the end of the day. See all the other Ford differences that *cut downtime* at your nearest Ford tractor dealer!

NUMBER ONE ON WHEELS
FORD TRACTOR

*Maintenance times are quoted under normal operating conditions. Adverse conditions may dictate more frequent maintenance.

Your Ford industrial tractor and equipment dealer is listed in the Yellow Pages under "Tractors" or "Construction-Equipment." See him for information on how to buy, lease, rent or finance.



For More Details Circle (113) on Reply Card

WEEDS TREES and TURF[®]

Volume 11, No. 11 November, 1972

James A. Sample
Editor

Hugh Chronister
President

Arthur V. Edwards
Publisher

D. D. Langley
Director of Circulation

ADVERTISING SERVICES

Eric Lindsay
Advertising Production Manager
9800 Detroit Ave.,
Cleveland, Ohio 44102
Tel. 216+651-5500

ADVERTISING SALES OFFICES

Headquarters
Cleveland, Ohio 44102
9800 Detroit Ave./216+651-5500
Ext. 27

Chicago, Illinois 60601
333 N. Michigan Ave./312+236-9425
John Kiehl

New York, New York 10017
757 Third Ave./212+421-1350
Russell Bandy

Cleveland, Ohio 44102
9800 Detroit Ave./216+651-5500
Roger Gilmore

WTT Special News Report	7
<i>An in-depth news feature on the new Federal Environmental Pesticide Control Act of 1972. This Act will directly affect Green Industry businesses, particularly if the business involves the application of environmental protection chemicals.</i>	
Applicator Use Laws — Part II	9
<i>Passage of the Federal Environmental Pesticide Control Act sheds new light on the licensing of applicators. Here's the finale of this two-part series and insight as to what will happen in the next two to four years.</i>	
A Ryegrass That Cuts Clean	12
<i>Sow...Mow...Go... That's the story behind a fine-leaved perennial ryegrass named Pennfine. It has been receiving wide acclaim for the clean cut characteristics bred by researchers at Penn State University. Read the latest word on a ryegrass that has mowability.</i>	
Low Temperature Turfgrass Kill	14
<i>Dr. James B. Beard, Michigan State University, puts it all together in this article on wintertime sod kill. Of particular interest is his advice on ice rinks on page 29.</i>	
International Pesticide Applicators Association Report	16
Weevil Battalion Charges Water Hyacinth	18
Outdoor Trees For Indoor Use	20
Super Duals Protect Turf At Memory Gardens	37
Editorial	4
Government News/Business	5
Letters To The Editor	24
Meeting Dates	25
Industry People On The Move	27
Sod Industry Section	30
New Products	32-33
Insect Report	34
Classifieds	39
Advertiser's Index	39
Trimmings	40

The Cover

At turf level, most ryegrasses take on the frazzled, frayed look of the blade on the right of this month's cover. Now science and nature have developed a new fine-leaved perennial ryegrass that takes a clean cut as shown in the blade on the left. This ryegrass is called Pennfine. Note the distinct differences between the two blades. Multiply the blade on the right by all the blades in a turf and the result is a faded, weathered look that often provides too much cushion for a golf ball. The blade on the left will hold a ball erect and at eye-level give a pleasing green appearance.

WEEDS TREES and TURF is published monthly by The Harvest Publishing Company, subsidiary of Harcourt Brace Jovanovich, Inc. Executive, editorial headquarters: 9800 Detroit Ave., Cleveland, Ohio 44102.

Single Copy Price: \$1.00 for current and all back issues. Foreign \$1.50.

Subscription Rates: WEEDS TREES AND TURF is mailed free, within the U.S. and possessions and Canada, to qualified persons engaged in the vegetation care industry and related fields in controlled circulation categories. Non-qualified subscriptions in the U.S. and Canada are \$10.00 per year; other countries, \$12.00 per year. Controlled circulation postage paid at Fostoria, Ohio 44830.

Copyright © 1972 by The Harvest Publishing Company



Member
American Business Press
Business Publications Audit





Fylking Ecology

0217® Brand Fylking Kentucky bluegrass lawn seed and sod contribute greatly to the improvement of the surrounding environment. Its superior density crowds out weeds requiring much less chemical weed control.

Fylking's high disease resistance means less disease and little, if any, chemical treatment for turfgrass diseases.

Green chlorophyll in grass blades absorbs carbon dioxide. Oxygen is released into the air from the plants, and with Fylking's greater density and leaf blade multiplicity it is calculated a 50 foot square lawn will supply daily oxygen for four people.

Get the superior oxygen producer, 0217® Brand Fylking Kentucky bluegrass lawn seed or sod at your local wholesale seed or sod distributor.



**FYLKING
KENTUCKY
BLUEGRASS**

U. S. Plant Patent 2887

Another fine product of Jacklin Seed Co., Inc.

Editorial

Applicator's Tea Party

With the exception of the states of Washington and Kansas, the professional applicator has no voice in the administration of the application and use law enacted by his state. The situation ostensibly parallels our early colonial history of taxation without representation.

As you recall, the British, like our state governments tightened up colonial administration and began to tax the colonists on imported goods. Our state governments, swept by the wave of environmental emotionalism, have, in 38 states, enacted tough application and use laws which limit, restrict and require licensing of applicators in the performance of their jobs. Like the British monarchy, never a thought was given in consulting the applicator for whom the law was passed.

While we endorse workable legislation and the provision for licensing of professional applicators, we cannot condone the parochial attitude of state administrators. A quick review of selected states shows a national myopia that must change, and soon. For example, Arizona's pesticide board is comprised of 13 members from private industry; Hawaii's advisory committee has 17 members who represent every segment of agriculture, health, structural pest control, and natural resources *except* the custom applicator; Iowa has a farmer experienced in the application of agricultural chemicals on the commission, yet farmers are exempt from licensing under the law; New Jersey's Pesticide Control Council specifies nine members, six to be state appointees and one to be a farmer, one a toxicologist and the last an ecologist; and the list goes on.

This gross snubbing of the professional applicator in favor of persons who probably have never applied an environmental protection chemical is further amplified in the fact that in all but nine states, administration of the law is delegated to the state department of agriculture, state plant board, commission of agriculture and commerce or the board of regents of the state university. We submit that this is totally out of line in view of the fact that in most states, farmers are exempt from the law.

The crux of the issue is administration without representation. The early colonists organized the Sons of Liberty groups and rejected the British goods. Professional applicators must become organized in each state and lobby for a seat on the administration board.

Pressure must be placed on the state legislature and the governor to move this board from the department of agriculture to a newly formed department of environmental protection or similar state agency. Already this has taken place in

(continued on page 25)



Government News / Business

The sequel to Rachel Carson's "Silent Spring" may well be "Naked Forest" if gypsy moth numbers are not brought under control. This cavorting caterpillar has stripped and defoliated more than a million acres of woodland each year for more than the last four years. This year was no exception. An estimated 1,361,500 acres in nine northeastern states were mauled by moth larvae. This was a drop of about 600,000 acres from the 1971 defoliation figure. Additionally the moth got the travel bug and wound up being sited for the first time in Iowa, Tennessee and West Virginia.

Wait three days before beginning the job. That's the best advice coming out of the United States Court of Appeals for the District of Columbia. The court has upheld a Federal Reserve Board regulation under the Truth-In-Lending Act. The American Association of Nurserymen have boiled down the legalese to a few short sentences. According to AAN, a landscape firm which starts to perform a landscaping contract during the first three days does so at its own risk. The buyer can cancel the contract and tell the seller to come and get his plant material. If the seller doesn't come and get it within 10 days, the buyer can keep it. It might be a good idea to get a copy of the Act before the snow melts on next year's business.

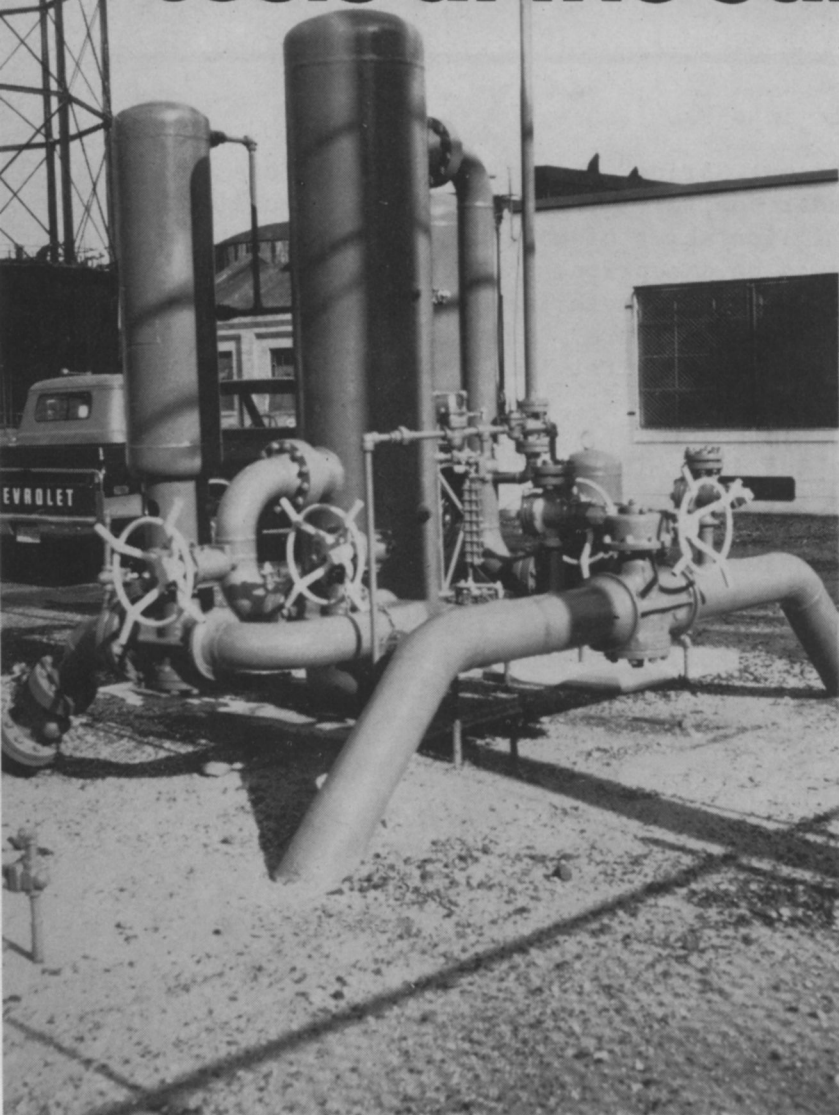
While many USDA officials are still coloring the "Green Industry" a cool green, the National Agricultural Chemicals Association has selected a distinctive forest green color in its new board of directors. Elected from member companies were: Elton L. Clark, Rhodia, Inc.; Jack G. Copeland, Jr., Hercules, Inc.; K. Ross Ritzsimmons, Shell Chemical; Lionel Hart, NOR-AM Agricultural Products, Inc.; John Kilsheimer, O.M. Scott and Sons; Robert S. Kirk, Kirsto Company; A. Malcolm McVie, Elanco Products; Robert Naegele, Dow Chemical; Edward C. O'Connor, Kerr-McGee; and John C. Tapas, Velsicol Chemical.

AUNTIE POLLUTION is a new magazine for school-age children. Purpose is "to give youngsters the chance to explore the environment the way they want it explored." Material will be written by young people for young people. Here's a chance to let that young journalist in the family write about the business (es) of the "Green Industry."

Twenty-three companies have requested a hearing on the proposed order to cancel most uses of Aldrin and Dieldrin. They charge that there is no substantial question of the safety to man or the environment in the use of these environmental protection chemicals. They also submit that no reasonable substitutes for them exist, particularly for soil application for corn, citrus and termites.

Federal Highway Administration and the auto industry will eventually make highways safer. In addition to shock-absorbing bumpers sported by a few autos, energy-absorbing crash barriers are proving to be highly effective life savers. Technically known as impact attenuators, these barriers are placed in front of immovable objects which cannot be eliminated from the roadside. Be on the lookout for water-filled plastic cylinders and metal drums known as "Texas barrels," all designed to absorb energy and minimize damage to vehicles and occupants. All are part of President Nixon's intensified highway safety campaign.

How to control weeds and costs at the same time.



In industrial applications, as shown here, Tandex controls weeds along fence lines, parking areas, ditches, pipelines, sidings, storage areas, tank farms, and sign posts.



Weeds are expensive.

They are everything from a fire hazard to a haven for unfriendly rodents.

They can corrode a fence line.

Make people sick.

Destroy the drainage efficiency of a railroad's right-of-way.

Millions of man-hours and thousands of machines are fighting the war against weeds.

A very expensive war.

Weeds hit some harder than others

The weed onslaught is particularly damaging to such operations as railroads, utilities, oil fields and highways, as well as general industry.

This message is especially addressed to operations like these—it is a message about Tandex®, the soil sterilant that can drastically cut the cost of weed control programs.

Tandex—what it is and what it does:

Tandex is a urea-carbamate compound that's demonstrated exceptional control over weeds, grasses, vines, brush and the hard-to-kill woody species.

Tandex does its weed-killing job by being absorbed through plant roots.

Once applied, Tandex can last a whole season, or longer. Yet it's relatively non-hazardous to man, animals or fish.

A distinct advantage of Tandex is its stability in the soil. Put another way, this means it has minimum lateral movement—which reduces the danger to nearby trees and shrubs you *don't* want to lose.

Tandex can be sprayed or applied in dry granular form. It can also be combined with other herbicides for special control situations.

For more information, write to Industrial Chemicals Dept., Niagara Chemical Division, FMC Corporation, Middleport, New York 14105.

Tandex®

Herbicide

It gets to the root of weed problems

Industrial Chemicals Dept.,
Niagara Chemical Division,
Middleport, New York 14105
Tandex® is a registered trademark
of FMC Corporation.



Federal Environmental Pesticide Control Act

Although held in suspension throughout two Congressional sessions by the vigorous agitation of many outside pressure groups, the Federal Environmental Pesticide Control Act of 1972 was signed into Public Law 92-516 by President Nixon on October 21, 1972. The long-awaited Act substantially amends the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and provides rational guidance in the certification of applicators, registration and labeling of environmental protection chemicals, classifications of compounds and penalties for violation, and satisfies some of the demands of the environmentalists.

The single greatest provision, which the Law details in specific terms throughout the many-page document, is the autocratic authority now vested in the EPA Administrator. Perhaps no other political appointee wields as much power over any industry or segment of American government as William D. Ruckelshaus. The Law clearly elevates his position to patriarch of pesticide protection. Regulations, classifications, determinations, rejections, suspensions and enforcements will be metered out by the judgment of this one individual.

Environmental protection chemicals will be registered for general use or for restricted use. The key word is use. Determination of use is made by the Administrator. For example, if he determines that a pesticide, "when applied in accordance with its directions for use, warnings and caution and for the uses for which it is registered, or for one or more of such uses, or in accordance with a commonly recognized practice, will not cause unreasonable adverse effects on the environment, he will classify the pesticide, or the particular use or uses of the pesticide to which the determination applies, for general use."

Restricted use chemicals may be applied only by or under the direct supervision of a certified applicator. Determination of the restricted use classification is made by the Administrator when he finds that the acute dermal or inhalation toxicity of the chemical presents a hazard to the applicator or other persons, or that its use without additional regulatory restriction may cause unreasonable adverse effects on the environment. But that's not all. The Administrator may also tack on additional regulations for restricted use, subject to review in a court of appeals upon petition. Further, the Administrator may change the classification of any use of a chemical from general use to restricted use, again subject to appropriate notification and the publishing of the proposed change in the FEDERAL REGISTER.

While the Federal Environmental Pesticide Control Act of 1972 became Law when signed by the President at Camp David, Md., there is a lag as to when various provisions of the Act become effective. For instance, chemical candidates for registration will be administered under the provisions of FIFRA for the next two years. By then, EPA will have published regulations for the registration and classification of pesticides under the new Law. After these initial two years, the Act specifies that the Administrator has an additional two years to register and reclassify chemicals registered under FIFRA during the first two years. Also, a grace period of four years from October 21, 1972 is built into the Law for requirements that a pesticide be registered for use only by a certified applicator. And, a period of four years is provided for certification of applicators.

Copies of the new Law are scarce. Yet it will behoove anyone even remotely concerned with environmental protection chemicals and their application to have a copy of the law in their possession. Best source is your Congressman or write to the Government Printing Office and ask for Public Law 92-516. It could be well worth the effort.

OUTPERFORMS ANY SAW IN ITS CLASS!



ORLINE Challenger MARK II

We call it the Challenger for good reason! We challenge any saw in its class to match it for smooth cutting speed, for rugged construction, for long, trouble-free life!

A husky 2 cu. in. engine, with oversize ball and roller bearings, provides the muscle to handle the toughest woodcutting chores with ease. Full 14" bar and fast-cutting Omark .325 chain slices through logs up to 28" in diameter. Automatic oiling protects bar and chain. "Compression Release" insures safer, easier starting. The Spark Arresting muffler is recessed for your safety. And the sturdy die-cast housing protects the Mark II from the abuse that shortens the life of other lightweight saws.

Order Today — at dealer cost: **\$101.25**

Regular Retail **\$134.95**

IT PAYS FOR ITSELF!



**SAVE \$\$\$
ON YOUR
FIRE-
WOOD!**



**DO
YOUR OWN
PRUNING &
TRIMMING**



**Save the
cost of
clearing
unwanted or
damaged
trees**

ORLINE
yard-arm

**IT PRUNES!
IT EDGES!
IT CLEARS
BRUSH!**

... and it also trims, sands and wire brushes. ... fills your hands with horsepower, then gives you a 6 ft. reach!

**EDGES
LAWNS, IVY,
GROUND COVER.**

**SANDS
OR
WIRE
BRUSHES**

ORLINE PRODUCTS
Los Angeles,
Calif. 90023

Yard-arm at dealer cost, **\$97.50.**

Regular Retail, **\$129.95.**

Please ship immediately!

Challenger Mark II Chain Saw(s) @ \$101.25. _____ Number

Online Yard-arm(s) @ \$97.50. _____ Number

My check in the amount of \$_____ is enclosed

Return coupon with your order to:

Market-Time, Inc., P.O. Box 294, Northbrook, Ill. 60062

SEND CHECK WITH ORDER

Add \$6.95 for prepaid handling and shipping



MARKET-TIME, INC.

P.O. BOX 294, NORTHBROOK, ILLINOIS 60062

312/272-7116

Note: Illinois residents add 5% sales tax or include sales tax number.

For More Details Circle (106) on Reply Card

Applicator Use Laws

PART I of Applicator Use Laws was printed in the October issue of WEEDS TREES AND TURF. At that time, it was noted that many states are currently establishing licensing procedures in line with proposed Federal legislation. This legislation has now become law. The Federal Environmental Pesticide Control Act of 1972 was signed by President Nixon on October 21.

Therefore, it is pertinent to review several points in this Act pertaining to applicators of environmental protection chemicals. These include certification of applicators, licensing or certification standards, training and the effective date of compliance.

Within one year EPA will prescribe standards for certification of applicators. These standards will include provisions for use and handling of chemicals or the use and handling of chemicals covered by an individual's certification.

States desiring to certify applicators may at any time submit a state plan through the governor of the state to EPA. Criteria for approval by Administrator Ruckelshaus include: 1. designation of a state agency responsible for administering the plan; 2. assurance that the agency has or will have the legal authority and qualified personnel necessary to carry out the plan; 3. appropriation of adequate funds to the administration of the plan; 4. issuance of such reports to EPA as the administrator may require; 5. standards for certification of applicators that conform with those standards prescribed by EPA. The Law clearly specifies that the burden of responsibility for state certification of applicators rests on the states.

Training of applicators will be accomplished two ways. EPA is authorized to enter into cooperative agreements with states or form contracts with Federal or state agencies. The services of the state cooperative extension service may be used to inform farmers of accepted uses and other regulations of the Law. Currently, most states have made no provision to train applicators.

The new Law further states that a period of four years from the date of enactment shall be provided for certification of applicators. Further, within three years each state desiring to certify applicators must submit a state plan to EPA. No more than one year may lapse after state submission before the Administrator must approve the state plan or indicate reasons for disapproval. Consideration of plans resubmitted by states will be expedited.

The following completes the state-by-state breakdown on the use and application laws for commercial applicators:

MONTANA

Administered by the state department of agriculture, Montana passed its first pesticide use and application law, effective January 1, 1972. The act updates existing

registration laws and provides for regulating "restricted use pesticides."

NEBRASKA

Until it was approved in February, Nebraska had no pesticide use and application law. Under the new Legislative Bill No. 905, the term pest control professional is defined as "any person who operates pest control equipment, applies economic poisons, or buys and sells economic poisons for a valuable consideration. Legislative Bill No. 285, approved February 18, 1972, amends certain sections of the statutes relating to aeronautics by authorizing the department of aeronautics to issue appropriate certificates designating qualified individuals to conduct aerial pesticide application operations in the state, after meeting certain qualifications, including experience, training, and financial responsibility.

The legislature further has resolved "that the Extension Service of the University of Nebraska is urged to expand its educational programs in the use of chemical pesticides and herbicides by providing additional training courses or seminars for farmers and ranchers, and by encouraging county agents to provide additional instruction at the local level."

NEVADA

The Nevada Pesticides Act is the new name for the older Economic Poisons Law. It continues to be unlawful to apply pesticides by aircraft or ground equipment without a license. Additionally, the executive director of the state department of agriculture has the authority to eliminate from use in the state any pesticide which endangers the agricultural or nonagricultural environment and which is not beneficial for the purpose for which it is sold. Under the custom application law, Assembly Bill No. 280 would permit the acceptance of liability insurance policies with a deductible feature of \$500 for aerial operators and \$250 for all others.

NEW HAMPSHIRE

Unless registered with the Pesticides Control Board, it is unlawful to engage in commercial application of pesticides. Exemptions include research and experimental work and individuals making their own application provided their crops are not offered for sale. Renewal of licenses is on a calendar year basis. However, the applicant for renewal must furnish sample, accurate record of his use of pesticides for the preceding calendar year. Another relevant law concerning licensing of applicators is the New Hampshire Arborist Law.

NEW JERSEY

There is no pesticide use and application law in this state. Rather Assembly Bill No. 1386, approved June 1, 1971, supplements the current economic poison act and authorizes the department of environmental protection to adopt regulations, after consultation with the pesticides control council, which will regulate the use and application of pesticides. Thus the Pesticides Control Act of 1971 becomes in effect the first pesticide use and application law.

NEW MEXICO

A license is required in this state to act, operate, do business, or engage in custom application of pesticides. Exemptions to the Pesticide Applicators Law include: stump treatment, axe frilling, tree injection, plant treatment adjacent to buildings and termite and household insect control. While there is no charge to take the examination, a \$25 annual fee is levied for each unit of aerial application equipment, and \$10 annual fee for each unit of "any other applicator." Permits expire December 31 and are renewable upon application made prior to March 31. Afterwards, a written examination is required.

N. C. Applicators Face Big Decision

The N. C. Pesticide Law of 1971 requires all "restricted-use" commercial ground applicators, pesticide dealers and pest control consultants to obtain an interim license by Jan. 1. Aerial applicators had to obtain an interim license by last July 1.

The N. C. Department of Agriculture will mail an application for an interim license by Nov. 1 to all restricted-use commercial ground applicators pesticide dealers and pest control consultants currently on the department's mailing list. Other people may apply for an application by writing to William B. Buffalo, Administrator, Pesticide Branch, N. C. Department of Agriculture, Raleigh, N. C. 27611.

Commercial ground applicators and pest control consultants know they must apply for a license, commented John H. Wilson, pesticide education coordinator at N. C. State University. But dealers may have difficulty determining if they are selling restricted-use pesticides or if they want to sell them in the future.

So far, the N. C. Pesticide Board has placed over 60 pesticides on the restricted-use list. Included on the list are such common pesticides as heptachlor, DDVP, dieldrin, Mirex, parathion, paraquat, warfarin, Thimet, and Systox. Any dealer selling such pesticides must obtain an interim license and then qualify for a permanent license by Jan. 1, 1974.

Wilson said county officials of the Agricultural Extension Service can help dealers to determine if they are now handling restricted-use pesticides. The Extension Service is also preparing an educational program that can help restricted-use dealers qualify for their permanent license by the end of next year.

"The new law is not intended to put anyone out of the pesticide business," Wilson said. "But selling pesticides in the future is going to be different from selling apples."

NEW YORK

Fifty-five chemicals are now listed as restricted pesticides in this state. These may be distributed, sold, purchased, possessed and used only upon issuance of a commercial or purchase permit. In addition, the state has listed seven chemicals which may only be distributed, sold, purchased, possessed or used for the purposes listed by the state. Further, 10 pesticides are listed for which no permitted uses will be allowed. This designation of restricted pesticides by chemical name is the largest published list available and represents the first attempt for a state to limit pesticide usage. It is also interesting to note that an applicant for a license must satisfy the commissioner of agriculture and markets that he has sufficient knowledge and experience concerning the proper use and application of pesticides prior to taking the examination and issuance of a license. Licenses are issued for one year although registration may be cancelled or refused for specified causes (including application of pesticides contrary to the registered label usage).

NORTH CAROLINA

In the new pesticides control law which became effective January 1, 1972, the seven-member pesticides control board has the authority to require the examination and licensing of "applicators" and "consultants." It also repeals the general statutes of the Aerial Crop Dusting Law applicable to custom application of pesticides by aircraft. The new law authorizes the board to adopt a list of "restricted use pesticides" and to regulate their use, including the establishment of a "permit" system.

NORTH DAKOTA

The Aerial Spraying law prohibits anyone to engage in aerial spraying without obtaining a license for each aircraft from the North Dakota Aeronautics Commission. At presstime, no other information was available as to whether ground applicators must be licensed.

OHIO

Under the provisions of the Pesticide Use and Application Act, it is unlawful to act as a pesticide applicator, pesticide operator, or public operator unless licensed by the director of agriculture. Following the necessary qualifications, application and examination, the applicator is charged \$50, the pesticide operator \$10, and the public operator has no fee assessment. Provisions are made for reciprocity for nonresident applicators.

OKLAHOMA

While it is unlawful to engage in custom application of pesticides without a license, the Oklahoma Pesticide Applicators Law exempts the application of pesticides on lawns, trees, shrubs, and in the control of termites and household insects. For other application jobs a written examination is required. Fees are \$25 for a resident aerial applicator; \$25 for each aircraft for a non-resident aerial applicator; and \$10 for other applicators. The Ornamental Spraying and Pruning Law requires the licensing of persons who engage in the business of spraying or pruning trees, shrubs, or weeds. Further, the Oklahoma Phenoxy Herbicide Law requires dealers who sell phenoxy herbicides to obtain permits and keep