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Enforcement of Pesticide Regulations in North Carolina

by Tom Mather

This article looks at the structure of North Carolina's three pesticide oversight and advisory boards, their powers and responsibilities, their enforcement actions, and their supporting agencies in the Department of Agriculture. The article also seeks to answer the following questions: Do the state's pesticide oversight and advisory boards include a balanced representation of public interests? Do those boards have fair and consistent methods for penalizing violators? What kinds of violations are most common among pesticide applicators? Do some types of pesticide users account for more violations than others? How does the state train, license, and certify pesticide applicators? In its research, the N.C. Center for Public Policy Research found that environmental interests are not fully represented on the state's pesticide oversight and advisory boards. The Center's review of enforcement records found that aerial applicators and exterminators had much higher violation rates than other groups of pesticide users. Proposals for curbing violations include harsher penalties for repeat violators, stricter limits on aerial spraying, and more extensive training requirements for exterminators and aerial applicators.

The Environmental Protection Agency may be the nation's final authority on pesticide regulation, but the top dog in North Carolina is the Department of Agriculture. That's because the EPA delegates its enforcement powers to a "lead" pesticide program in the states.¹ And North Carolina, like most states, has regulated pesticides through its agriculture department since the days when fly swatters were the primary means of pest control.

The N.C. General Assembly considered changing that arrangement in 1989, when it reorganized the state's environmental programs. At that time, the legislature consolidated most of the state's environmental agencies into the new Department of Environment, Health, and Natural Resources. But legislators—despite appeals from environmentalists—balked at moving pesticide regulation into the new "super agency" after hearing strong complaints from farmers and agricultural interests.

The N.C. Department of Agriculture is responsible for regulating more than 12,000 pesticide dealers, exterminators, crop dusters, lawn-service companies, and other commercial applicators—in addition to thousands of farmers and home gardeners. In doing so, the department's pesticide program employs about 80 people with an annual budget exceeding \$4.1 million in FY 1992–93.

The administration of the state's pesticide program is complex, with key responsibilities divided among several divisions of the agriculture department as well as three boards. Much of the program's enforcement power rests with two panels, the Pesticide Board and the Structural Pest Control Committee, whose members are largely drawn from the ranks of agriculture, industry, and state government. A third panel, the Pesticide Advisory Committee, provides technical advice to the Department of Agriculture and the Pesticide Board but has no enforcement powers.²

This article looks at the structure of North Carolina's pesticide oversight and advisory boards, their powers and responsibilities, their enforcement actions, and their supporting agencies in the Department of Agriculture. (See Table 2 on p. 36.) The article also seeks to answer the following questions: Do the pesticide oversight and advisory boards include a balanced representation of public interests? Do those boards have fair and consistent methods for penalizing violators? What kinds of violations are most common among pesticide applicators? Do some types of pesticide users account for more violations than others? How does the state train, license, and certify pesticide applicators? In attempting to answer those questions, Center staff attended numerous board meetings, reviewed enforcement records over a five-year period, and interviewed various board members, agriculture officials, industry representatives, environmentalists, and public interest advocates.

North Carolina does not require any formal training for the "technicians" who apply pesticides for lawn service companies or structural pest control firms (exterminators).



John Rotter, The News & Observer

Pesticide Legislation in North Carolina

Like federal legislation, North Carolina's early pesticide laws primarily were aimed at protecting consumers and farmers by assuring the performance of pesticide products.³ As stated in a state training manual for pesticide users, "Prior to 1971, North Carolina had neither laws to effectively limit the use or disposal of pesticides nor to see that most commercial pesticide applicators and dealers were qualified to apply or sell pesticides."⁴

That changed when the General Assembly adopted the **North Carolina Pesticide Law of 1971.**⁵ The law is designed to regulate—in the public interest—the use, application, sale, disposal, and registration of pesticides. Like current federal legislation, the state law attempts to balance the benefits of pesticides with the hazards they can pose for the environment and public

"The thrust of pesticide regulation has always been that they are necessary evils for the production of food and fiber."

—JOHN L. SMITH, PESTICIDE ADMINISTRATOR
N.C. DEPARTMENT OF AGRICULTURE

John L. Smith, pesticide administrator for the N.C. Department of Agriculture



Tom Mather

health. "The thrust of pesticide regulation has always been that they are necessary evils for the production of food and fiber," says John L. Smith, administrator of the state's pesticide program. The Pesticide Law also created the N.C. Pesticide Board to carry out, with the Commissioner of Agriculture, the enforcement of pesticide regula-

tions; and the Pesticide Advisory Committee, to advise the board and the commissioner on technical matters.

Legislators have amended the Pesticide Law a number of times, often to comply with changes in federal pesticide regulations. A key change enacted in 1993 was a bill that created a Pesticide Environmental Trust Fund to help pay for new health and environmental programs.⁶ The law imposes additional registration fees on pesticide products, with one-fourth of the funds being used to pay for agricultural-medical programs at North Carolina State University and East Carolina University. Three-fourths of the funds are earmarked for the Department of Agriculture's environmental programs, including the monitoring of groundwater pollution by pesticides and the disposal of pesticide containers.

The other key state legislation dealing with pesticides is the **North Carolina Structural Pest Control Law,**⁷ originally passed in 1955 and since amended a number of times.

The law primarily deals with the training, certification, and licensing of structural pest applicators—that is, exterminators, termite-control applicators, and fumigators. It also established the Structural Pest Control Committee to adopt and enforce regulations.

In 1987, the General Assembly authorized the Legislative Research Commission to undertake a broad study of pesticide use in the state. The LRC's Committee on Pest Control—after considering more than 30 proposals dealing with pesticide regulation—made eight recommendations to the legislature's 1989 session.⁸ Legislators have acted on several of those recommendations, including funding a groundwater monitoring program for pesticides and agricultural-medical programs at North Carolina State and East Carolina universities. However, the legislature has not acted on other recommendations, which include tighter limits on aerial applicators and a proposal for collecting data on pesticide usage and sales.



Allen Spalt, director of the Agricultural Resources Center in Carrboro

“The Pesticide Board, on paper, is fairly representative. But if you ever look into the backgrounds of the people who fill those seats, there’s never been a conservationist appointed to that seat on the board—despite what it says on paper.”

—ALLEN SPALT, DIRECTOR
AGRICULTURAL RESOURCES CENTER

The N.C. Pesticide Board

The seven-member Pesticide Board shares with the Commissioner of Agriculture primary responsibility for regulating pesticides in North Carolina. As specified by the Pesticide Law, the board's duties include:

- Adopting rules, regulations, and policies for pesticide use.
- Carrying out programs for planning, environmental and biological monitoring, and investigating long-range needs and problems concerning pesticides.
- Advising the public, private groups, other state agencies, and the governor on matters relating to pesticides.
- Recommending legislation concerning the management and control of pesticides.
- Preparing annual reports to the governor as

Table 2.
Duties and Membership of North Carolina's Pesticide Oversight Boards

	Pesticide Board	Pesticide Advisory Committee	Structural Pest Control Committee
AREAS OF RESPONSIBILITY			
Advising staff	Yes	Yes	Yes
Adopting or revising regulations	Yes	No	Yes
Setting policy	Yes	No	No
Hearing contested cases and appeals	Yes	No	Yes
Issuing or suspending licenses	Yes	No	Yes
Enforcing regulations	Yes	No	Yes
Fining violators	Yes	No	Yes
Allocating funds	Yes	No	No
GROUPS REPRESENTED ON BOARD			
Universities or colleges	No	Yes	Yes
Farmers	Yes	Yes	No
Agriculture industry	Yes	Yes	No
Public health	Yes	Yes	Yes
Agriculture department	Yes	Yes	Yes
Environmental or conservation groups	Yes ¹	Yes	No
Environment or natural resources agency	Yes	Yes	No
Chemical or pest control industry	Yes	Yes	Yes
Public at large	Yes	Yes	Yes
Farmworkers	No	No	No
Other	No	Yes	Yes
WHO APPOINTS MEMBERS			
Governor	7	0	3
Agriculture Commissioner	0	1	2
Secretary of Environment, Health, and Natural Resources	0	2	1
Secretary of Transportation	0	1	0
State Health Director	0	1	0
N.C. State University (department heads)	0	3	1
Pesticide Board	0	12	0
TOTAL MEMBERS	7	20	7

¹ Although the N.C. Pesticide Law specifies that the Pesticide Board should include a "non-governmental conservationist," no member of the current board meets that qualification.

well as any other reports or investigations as requested by the governor or the legislature.

- Exempting state or federal agencies from provisions of the Pesticide Law under emergency conditions.

The Pesticide Board works closely with the N.C. Department of Agriculture, which provides staff and administrative support. Together, the board and the department regulate: the control of crop and animal pests; the application of pesti-

cides by commercial and private applicators; the training, certification, and licensing of applicators; the storage and disposal of pesticides; the sale, shipping, and registration of pesticide products; the testing of pesticide products for effectiveness; and penalizing violators.

Most administrative support for the Pesticide Board comes from the Pesticide Section of the department's Food and Drug Protection Division. Pesticide Administrator John Smith, who also serves as secretary to the board, heads a staff of

Table 3.
North Carolina Pesticide Board, 1994

I. Contact: John L. Smith, Pesticide Administrator
P.O. Box 27647, N.C. Department of Agriculture
Raleigh, NC 27611
(919) 733-3556

II. Membership:

Seven members appointed to four-year terms by the governor, including:¹

- 1) *One member representing the N.C. Department of Agriculture:*
K. Ray Forrest of Raleigh
Assistant Commissioner, N.C. Department of Agriculture
- 2) *One member who shall be the State Health Director or his designee from the N.C. Department of Environment, Health, and Natural Resources:*
C. Gregory Smith of Raleigh
Public Health Physician, Division of Epidemiology
- 3) *One member who shall represent an environmental protection agency in the N.C. Department of Environment, Health, and Natural Resources:*
Linda Rimer of Raleigh
Assistant Secretary for Environmental Protection
- 4) *One member representing the agricultural chemical industry:*
R. Earl Ogle of Raleigh
Executive Secretary, Pesticide Association of N.C.
- 5) *One member directly engaged in agricultural production:*
Rudolph W. Jones of Benson
- 6-7) *Two at-large members from fields other than listed above, including one who is a nongovernmental conservationist:*
Jerry F. Coker of Plymouth
Lu Ann Whitaker of Raleigh

¹ Qualifications of members as defined in the N.C. Pesticide Law, N.C.G.S. 143-436. Current board officers are: Chairman, Jerry Coker; Vice Chairman, Ray Forrest; and Secretary, John Smith.

about 60 people. The program's budget totaled nearly \$3.2 million in FY 1992-93.

The governor appoints all Pesticide Board members, who serve staggered four-year terms. (See Table 3 on p. 37 for a list of current members.) Members are supposed to represent the following interests: one from the N.C. Department of Agriculture; two from the N.C. Department of Environment, Health, and Natural Resources, one of whom is the State Health Director or his designee, and one representing an environmental protection agency; one from the agricultural chemicals industry; one directly engaged in

agricultural production; and two at-large members from other fields, one of whom is to be a "non-governmental conservationist."

The board's membership has been a sore point with environmentalists, who say that governors often have not appointed members who truly represent conservation interests. That criticism appears to have validity, as neither of the board's current at-large members—both appointed by former Gov. James G. Martin—claim to fill the conservationist seat. Lu Ann Whitaker, a Raleigh homemaker, says she considers herself a consumer advocate. Board Chairman Jerry Coker is

Table 4.
North Carolina Pesticide Advisory Committee, August 1994

I. Contact: John L. Smith, Pesticide Administrator
P.O. Box 27647, N.C. Department of Agriculture
Raleigh, NC 27611
(919) 733-3556

II. Membership:

20 members appointed by the N.C. Pesticide Board or the heads of agencies represented, including:¹

1-3) *Three practicing farmers:*

Charles P. Francis of Waynesville
Marshall W. Grant of Garysburg
Darryl Corriher of Rowan County

4) *One conservationist (at large):*

William Benson Kirkman of Raleigh

5) *One ecologist (at large):*

David A. Adams of Raleigh, N.C. State University (retired)

6) *One representative of the pesticide industry:*

Benny Rogerson of Raleigh, Uniroyal Chemical

7) *One representative of agri-business (at large):*

Charles G. Rock of Greensboro, Ciba-Geigy Corp.

8) *One local health director:*

Timothy Monroe of Greenville, Pitt County Health Department

9-11) *Three members of the N.C. State University School of Agriculture and Life Sciences, at least one of whom shall be from the areas of wildlife or biology:*

Peter T. Bromley of Raleigh, Department of Zoology
P. Sterling Southern of Raleigh, Department of Entomology
Alan C. York of Raleigh, Department of Crop Science

12) *One member representing the N.C. Department of Agriculture:*

John L. Smith of Raleigh, Pesticide Administrator

an engineer with Weyerhaeuser Co. in Plymouth.

"The Pesticide Board, on paper, is fairly representative," says Allen Spalt, director of the Agricultural Resources Center, a Carrboro-based environmental group. "But if you ever look into the backgrounds of the people who fill those seats, there's never been a conservationist appointed to that seat on the board—despite what it says on paper." Other observers familiar with the Pesticide Board say that Spalt overstates his assessment of members' qualifications. "This insinuates that you can be one or the other, but you cannot be both a conservationist and a profes-

sional," says Anne Coan, natural resources director for the N.C. Farm Bureau Federation. "This is not true."

The Pesticide Advisory Committee

The Pesticide Law of 1971 also established the Pesticide Advisory Committee. The 20-member committee provides technical advice on pesticides to the Agriculture Commissioner and the Pesticide Board. In addition, it can recommend policies, help develop regulations, and conduct detailed studies of issues—such as procedures for

- 13) *One member representing the N.C. Department of Environment, Health, and Natural Resources:*
Arthur Mouberry of Raleigh, Chief of Groundwater Section
Division of Environmental Management
- 14) *The State Health Director or his designee:*
W.A. "Bill" Williams of Raleigh
Pesticide Epidemiologist, Epidemiology Division
Department of Environment, Health, and Natural Resources
- 15) *One representative of a public utility or railroad company that uses pesticides:*
Joseph A. Gregory of Raleigh
Carolina Power & Light Co.
- 16) *One representative of the N.C. Board of Transportation:*
William D. Johnson of Raleigh
Landscape Unit, Department of Transportation
- 17) *One member of the N.C. Agricultural Aviation Association:*
M. Boyd Respass of Washington, N.C.
Dreamstreet Aviation Inc.
- 18) *One member of the general public (at large):*
Wanda Winslow of Asheville
- 19) *One member actively engaged in forest pest management:*
Coleman A. Doggett of Raleigh, Forest Resources Division
Department of Environment, Health, and Natural Resources
- 20) *One member representing the Solid Waste Management Division of the Department of Environment, Health, and Natural Resources:*
Larry D. Perry of Zebulon

¹ Qualifications of members as defined in the N.C. Pesticide Law, N.C.G.S. 143-439. Current committee officers are: Chairman, Alan York; Vice Chairman, Marshall Grant; and Secretary, John Smith.

monitoring groundwater contamination.

Like the Pesticide Board, the advisory committee's membership is supposed to represent a variety of interests. (See Table 4 on p. 38-39.) These include: three practicing farmers; one conservationist; one ecologist; one from the pesticide industry; one from agri-business; one local health director; one from a public utility or railroad company that uses pesticides; one from the public at large; one involved in forest pest management; one member of the N.C. Agricultural Aviation Association; one representing the state Health Director; one from the N.C. Department of Agriculture; one from the N.C. Department of Transportation; two from the N.C. Department of Environment, Health, and Natural Resources, one of whom represents the Solid Waste Management Division; and three faculty from the School of Agriculture and Life Sciences at N.C. State University, including at least one from the areas of wildlife or biology.

The directors of state agencies represented on the committee are responsible for appointing those members, while the Pesticide Board appoints the other members. As with the Pesticide Board, environmentalists have criticized the make-up of the advisory committee. "The problem with the advisory committee is not who fills the seats," Spalt says. "The basic problem is that different interests are not well represented on that committee."

Even some Pesticide Board members agree with that position. Greg Smith, a physician with the state Division of Epidemiology, recommended at an April 1994 meeting that the board reconsider its appointments to the advisory committee's ecologist and conservationist seats. In particular, Dr. Smith cited the ecologist seat, which was filled by John McLaurin, a retired farmer from Scotland County. "I don't know [McLaurin], and he may be a very nice gentleman," Dr. Smith told fellow board members. "But I really don't see anything in his biographical information that would suggest he has any background in ecology. I really don't think that particular position is filled appropriately."

The Pesticide Board initially rejected Smith's

motion, citing McLaurin's background in soil conservation. But the board later agreed to reopen its nomination process and, in August 1994, replaced McLaurin with Dave Adams, a retired N.C. State University forestry professor.⁹

The N.C. Structural Pest Control Committee

The seven-member Structural Pest Control Committee is the state's oldest pesticide oversight board, dating back to the mid-1950s. Unlike the Pesticide Board, which is charged with protecting the environment and public health, the structural pest board is more explicitly concerned with consumer protection. The Structural Pest Control Act created the board "to ensure a high quality of workmanship and in order to prevent deception, fraud and unfair practices" in the extermination business.¹⁰

The act also created the Structural Pest Control Division to provide staff support to the committee and to administer programs for licensing exterminators and enforcing regulations. Division Director Ray Howell oversees a 20-person staff and serves as secretary to the structural pest committee. The division's budget totaled more than \$950,000 in FY 1992-93.

The Structural Pest Control Committee is composed of seven members who serve terms ranging from two to four years. (See Table 5 on p. 42 for a list of current members.) Members are appointed by various state officials representing different interests. The Commissioner of Agriculture appoints two members, one from the Department of Agriculture and one from the general public. The dean of the College of Agriculture and Life Sciences at N.C. State University appoints one member from the entomology department. The Secretary of the Department of Environment, Health, and Natural Resources appoints one member who is an epidemiologist in the Division of Health Services. The governor appoints three members: two who are actively involved

and licensed in the pest control industry; and one public member who is unaffiliated with the pest control or pesticide industry, the Department of

"The idea behind the regulatory program is: If you're going to use pesticides, let's use them correctly. Education is a big component of that."

—JOHN L. SMITH
PESTICIDE ADMINISTRATOR
N.C. DEPARTMENT OF AGRICULTURE



State records show that aerial applicators have the highest violation rate among pesticide applicator types in North Carolina.

Agriculture, the Department of Human Resources, or the NCSU School of Agriculture. As with the other pesticide oversight panels, environmentalists have criticized the Structural Pest Committee for not including a broad enough range of public interests.

Licensing and Certification of Pesticide Applicators

A key responsibility of the state's pesticide program is the training of pesticide users, such as exterminators or aerial applicators. The Department of Agriculture regulates some 40,000 pesticide applicators through its licensing, certification, and registration procedures. (See Table 6 on p. 43 for a breakdown of applicators by type.)

"The idea behind the regulatory program is: If you're going to use pesticides, let's use them correctly," Pesticide Administrator John L. Smith says. "Education is a big component of that."

Certified private applicators, which include farmers who apply restricted-use pesticides, accounted for more than two-thirds (68 percent) of all registered applicators in 1992. Other types of

users, listed in order of their numbers, include: commercial ground applicators, or those who apply pesticides for money (11.8 percent); structural pest control, or exterminators (9.7 percent); public operators, or those who work for governments and utilities (6.9 percent); dealers (2.5 percent); aerial applicators, or crop dusters (0.6 percent); and pest-control consultants (0.2 percent).

Licensing and certification requirements vary widely among the types of applicators. The Pesticide Board requires licenses for all dealers, commercial ground and aerial applicators, public operators, and consultants—but *not* for farmers, homeowners and other private applicators. To obtain licenses, applicators must pass exams showing their knowledge of pesticide laws, safety, uses, and application techniques. Licenses must be renewed annually.

In addition to licenses, anyone who uses *restricted-use* pesticides must be "certified" under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). The Pesticide Board automatically certifies all licensed applicators who pass qualifying exams. But farmers and other unlicensed users of restricted-use pesticides also must

qualify as certified private applicators, either by attending approved training sessions or passing an exam. *Farmers, homeowners, and other private applicators who don't apply restricted-use pesticides do not have to obtain licenses or certifications.* Both licensed and certified private applicators must periodically renew their certifications, either by attending training sessions or re-taking the qualification exams.

The number of required training hours and the frequency of renewal for recertifications vary by the type of applicator. (See Table 7 on p. 47.) For instance, aerial applicators must earn four credit hours every two years to maintain their certifications. Applicators who treat ornamental plants and turf must earn 10 credits every five years. Certified private applicators must earn two credits every three years. Most other types of

Table 5.
North Carolina Structural Pest Control Committee, 1994

I. Contact: Ray Howell, Director
Structural Pest Control Division
P.O. Box 27647, N.C. Department of Agriculture
Raleigh, NC 27611
(919) 733-6100

II. Membership:

Seven members, including three appointed by the governor and four appointed by various state officials:¹

1-2) *Two members appointed by the Commissioner of Agriculture, one from the Department of Agriculture, and one from the general public but not in the structural pest business:*

David S. McLeod of Raleigh, N.C. Department of Agriculture
John L. Parker of Williamston

3) *One member from the Department of Entomology at N.C. State University who is appointed by the dean of the College of Agriculture and Life Sciences:*

Michael G. Waldvogel of Raleigh

4) *One epidemiologist from the Division of Health Services who is appointed by the Secretary of the Department of Environment, Health, and Natural Resources:*

W.A. "Bill" Williams of Raleigh

5-6) *Two members appointed by the governor who are actively involved and licensed in the pest control industry:*

J.W. "Jay" Taylor III of Wilmington, Ter-ro Exterminating Co.
J.E. "Jimmy" Lynn Jr. of Raleigh, Surety Exterminating Co.

7) *One public member appointed by the governor who is unaffiliated with the pest control or pesticide industry, the Department of Agriculture, the NCSU School of Agriculture, or the Department of Environment, Health, and Natural Resources:*

Curtis Harper of Chapel Hill
UNC-CH Department of Pharmacology

¹ Qualifications of members as defined by the N.C. Structural Pest Control Law, N.C.G.S. 106-65.23. Current committee officers are: Chairman, David McLeod; and Vice Chairman, John Parker.

Table 6.
Pesticide Applicator Licenses and Certifications Issued by the
N.C. Department of Agriculture, 1988-92

Type of License or Certification ¹	Annual Average 1988-92 ²	Total Number 1992	Percent of Total 1992	Percent Change 1988-92
Certified Private Applicator ³	28,650	27,209	68.0%	- 54%
Commercial Ground Applicator	3,509	4,723	11.8%	+ 76%
Structural Pest Control Applicator ⁴	3,428	3,892	9.7%	+ 12%
Public Operator	2,443	2,779	6.9%	+ 61%
Pesticide Dealer	986	1,009	2.5%	- 2%
Aerial Applicator (Crop Duster)	194	220	0.6%	+ 23%
Pest Control Consultant	65	79	0.2%	+ 18%
Total	58,229	39,991	—	- 41%

¹ Source: N.C. Department of Agriculture. North Carolina has two main agencies that regulate pesticides, with administrative support for both provided by the Department of Agriculture. The N.C. Pesticide Board regulates most agricultural and commercial uses. The N.C. Structural Pest Control Division primarily regulates exterminators, or structural pest applicators. License numbers from the Pesticide Board are based on *calendar* years, while Structural Pest Division numbers are based on *fiscal* years starting with FY 1988-89.

² Average number of licenses, certifications, or registrations per year, 1988-92.

³ Numbers of private applicators from 1991-92 only. The Pesticide Board first began requiring private pesticide applicators to renew their certifications in 1991, which accounted for a 51% decline in numbers from 1990 to 1991. Before 1991, numbers included many applicators who had died, moved out of state, or no longer applied pesticides.

⁴ Includes all registered structural pest control applicators, of which 17% were licensees, 31% were certified applicators, and 52% were technicians over the five-year period.

applicators must earn from four to six credits every five years. However, some pesticide applicators are not required to get any training at all. For instance, the "technicians" who apply lawn-care pesticides around people's homes are supposed to work under the supervision of licensed applicators but have no formal educational requirements.

The Structural Pest Control Committee has training requirements for three levels of exterminators: licensees, certified applicators, and registered technicians. No business may engage in structural pest control in North Carolina without at least one licensed applicator, the highest level.

Licensees must pass a qualifying exam and have at least two years experience in the field or equivalent educational background. Plus, they must qualify as certified applicators. North Carolina had 596 licensed exterminators in FY 1992-93, accounting for 15 percent of the total registered structural pest applicators.

To qualify as certified applicators, exterminators must pass written exams demonstrating their knowledge in each phase of structural pest control in which they plan to work—including fumigation, household pests, and wood-destroying insects. North Carolina had 1,160 certified applica-

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—continued from page 43
tors (not including licensees) in FY 1992–93, accounting for 30 percent of the total structural pest applicators. Like other types of pesticide applicators, both licensed and certified exterminators must renew their certifications periodically by attending classes or retaking exams. Educational requirements range from five to nine credit hours every five years, depending on the number of phases in which applicators are certified.

Registered technicians are the third category of structural pest applicators. Although technicians are not tested or formally trained, they are supposed to apply pesticides only under the supervision of certified applicators. Currently, the only training requirement for technicians is that they watch a 45-minute videotape dealing with safety issues. However, the Structural Pest Control Committee is considering more stringent requirements. The state had 2,136 registered technicians in FY 1992–93, accounting for 55 percent of the total structural pest applicators.

The N.C. Cooperative Extension Service conducts training sessions for all types of pesticide applicators, but the Department of Agriculture administers the licensing and certification exams. Between 1988 and 1992, the Pesticide Section administered 11,985 certification and recertification tests, with 78 percent passing the exams. During that same period, the Structural Pest Control Division administered 8,349 tests, with a 45-percent passing rate.

Enforcement of Pesticide Regulations

The Department of Agriculture and its oversight boards have a range of powers for enforcing pesticide regulations. These include the authority to conduct inspections, send warning letters, levy fines, suspend and revoke licenses, initiate criminal prosecutions, and require cleanups for accidents and spills. (The N.C. Center for Public Policy Research reviewed enforcement records for the Pesticide Section and the Struc-

***It is not my contention
that chemical
pesticides must never
be used. I do contend
that we have put
poisonous and
biologically potent
chemicals
indiscriminately into
the hands of persons
largely or wholly
ignorant of their
potentials for harm.***

—RACHEL CARSON, *SILENT SPRING*

tural Pest Control Division over a five-year period and those records are summarized in Table 8 on p. 48.)

Both pesticide agencies can conduct inspections, but the Structural Pest Division is more active in that regard. “We do many routine inspections,” Division Director Ray Howell says. In 1992, the division conducted 10,046 inspections of structural pest control firms and the structures they treated for pests. By contrast, the Pesticide Section conducted 8,083 inspections in 1992 relating to pesticide storage, disposal, record-keeping, and

product labeling and quality. In addition, the section investigated 232 complaints about pesticide violations in 1992.

Warning letters are perhaps the lowest level of formal enforcement action against violators. The state’s pesticide oversight boards typically send warning letters for less serious offenses, particularly those involving private applicators or first-time violators. Over the five-year period, the two boards sent about 50 warning letters per year.

Civil penalties generally represent the next level of enforcement. Both oversight boards can levy fines as high as \$2,000 per violation against commercial and licensed pesticide applicators. However, the Pesticide Board can fine private applicators (which includes most farmers) no more than \$500 for each willful violation. In 1992, the two oversight boards assessed \$55,790 in fines, about \$2,000 more than the annual average from 1988–92. The Pesticide Board fined each violator about \$500 on average over the five-year period, while the Structural Pest Committee’s average fine was about \$670.

Pesticide regulators consider *license suspensions* and *revocations* among the most serious actions they can take against violators, particularly commercial applicators. “Suspending or revoking a license is a really extreme action—because you’re taking away a person’s livelihood,” says Carl Falco, assistant director of the structural pest division. “With most of these people, this is the only kind of work they know. If you suspend

their license, you put them out of business.” From 1988–92, the two boards suspended about 11 licenses or certifications per year and revoked about five per year.

In extreme cases, both oversight boards can initiate *criminal prosecutions*. Although the Pesticide Board did not take any cases to court from 1988–92, the Structural Pest Committee averaged about 11 cases per year. Structural pest authorities say they have a larger number of prosecutions

because—unlike the Pesticide Board—they don’t have the authority to penalize *unlicensed* exterminators. So, those cases must be referred to the court system.

The Pesticide Board, unlike the Structural Pest Committee, has the authority to order *cleanups* for violations involving the leakage or spillage of pesticides. In 1992, the board ordered four cleanups, twice the annual average from 1988–92.

Table 7.
Training Requirements for Certified Pesticide Applicators
in North Carolina

Pest Control Category¹	Credit Hours of Training	Interval Between Certification Renewals	Hours of Training Per Year
Seed Treatment	3 hours	5 years	0.6
Certified Private	2 hours	3 years	0.7
Wood Treatment	4 hours	5 years	0.8
Right-of-Way	4 hours	5 years	0.8
Structural (1 phase) ²	5 hours	5 years	1.0
Agricultural Pest/Animal	6 hours	5 years	1.2
Aquatic	6 hours	5 years	1.2
Forest	6 hours	5 years	1.2
Public Health	6 hours	5 years	1.2
Regulatory	6 hours	5 years	1.2
Structural (2 phases) ²	7 hours	5 years	1.4
Structural (3 phases) ²	9 hours	5 years	1.8
Aerial	4 hours	2 years	2.0
Agricultural Pest/Plant	10 hours	5 years	2.0
Demonstration/Research	10 hours	5 years	2.0
Ornamental/Turf	10 hours	5 years	2.0

¹ *Source:* N.C. Department of Agriculture. Pest control categories do not always correspond with types of pesticide applicators listed in Tables 6 and 10, because applicators can be certified in more than one category. Structural pest control applicators are certified through the N.C. Structural Pest Control Division, which regulates exterminators. All other applicators are certified through the N.C. Pesticide Board, which regulates most agricultural and commercial uses.

² Structural pest applicators can be certified in as many as three phases—fumigation, household pest control, and wood destroying insect control.

Table 8.
Pesticide Enforcement Actions by the
N.C. Department of Agriculture, 1988-92¹

Type of Enforcement Action	Pesticide Board		Structural Pest Control Division	
	Total 1992	Average 1988-92	Total 1992	Average 1988-92
Warning Letters	26	19.8	47	30.4
Board Actions	52	58.4	43	54.0
Court Cases ²	0	0	12	10.8
Fines: Number	42	49.6	38	44.0
Total Fines	\$18,840	\$24,478	\$36,950	\$29,405
Average Fine	\$449	\$494	\$972	\$668
Revocations ³	1	0.6	7	4.0
Suspensions ⁴	12	6.4	4	4.8
Product Recalls	1	3.4	NA	NA
Cleanups Required	4	2.0	NA	NA
Total Inspections ⁵	8,083	7,023	10,046	8,471
Pesticides Tested ⁶	1,711	1,719	NA	NA

¹ *Source:* N.C. Department of Agriculture. North Carolina has two main agencies that regulate pesticide use, with administrative support for both provided by the Department of Agriculture. The N.C. Pesticide Board regulates pesticide use by farmers, aerial applicators, lawn-service companies, and other commercial applicators. The N.C. Structural Pest Control Division regulates exterminators, including household pest applicators, termite controllers, and fumigators.

² Court cases initiated by the Structural Pest Control Division all involved unlicensed and uncertified applicators.

³ Includes all licenses, certifications, and registrations revoked or surrendered.

⁴ Includes all licenses, certifications, and registrations suspended or modified.

⁵ For the Pesticide Board, number includes all inspections relating to record-keeping, storage, disposal, and product labeling and quality. For the Structural Pest Control Division, number includes all inspections of exterminator firms and work sites.

⁶ Number of pesticide products tested for purity and accuracy of labeling.

Consumer Protection Issues

In addition to policing powers, both pesticide boards and the Department of Agriculture have substantial responsibilities dealing with consumer protection and safety. The Pesticide Section tests about 1,700 pesticide products per year to ensure that they are effective, properly labeled, and registered.¹¹ The department's Food and Drug Protection Division also tests samples of fruits and vegetables to ensure that they don't contain pesticides at levels exceeding EPA tolerance limits.

Consumer protection is the primary focus of the Structural Pest Control Division. In fact, most of the division's enforcement activities are aimed at ensuring that exterminators adequately treat homes and buildings for termites and other pests. "Easily, 90 percent of what we do is dealing with wood-destroying insects," Falco says. "With our [violations], a lot of times—instead of for putting out too much pesticides or in the wrong place—it's for not putting out enough chemical."

Some exterminators say the division goes too far in that direction. David Nimocks, an applicator with Terminix in Fayetteville, says the division's standards require exterminators to apply much more pesticides than are needed to control termite damage. "Research shows that 7 parts per million [of pesticide] is enough to kill the termites," Nimocks says. "Yet, they're wanting us to apply at 500 ppm. Even those [homes] that are failing, they're still getting 70 ppm—10 times what they need to kill the termites."¹² Steve Taylor, owner of Capital Pest Services in Raleigh and past president of the N.C. Pest Control Association, says that excessive treatment standards cost consumers more money and pose safety hazards. "If you ask me to re-treat a house with 100 to 150 gallons of termiticide, at my cost," Taylor says, "it becomes a financial consideration and an environmental consideration."

Other exterminators and structural pest control officials, however, disagree with the contention that treatment standards are too high. "I don't think there's a problem with the numbers," says James E. Lynn, owner of Surety Exterminating Co. in Raleigh and a member of the N.C. Structural Pest Control Committee. "They [critics] are looking at the dollar signs. I question their sincerity." The committee adopted its standards, he says, based on the levels of chemicals needed to control termites as recommended by pesticide manufacturers and the U.S. Department of Agriculture's research laboratories. Plus, he says,

the state needs standards that prevent structural pest damage for many years—to ensure that homeowners are protected.

Pesticide Violations by Type

What types of violations account for the most enforcement actions? The N.C. Center for Public Policy Research answered that question by reviewing the Pesticide Board's warning letters and settlement agreements from 1988–92. Enforcement actions were grouped into eight broad categories of violations, which sometimes overlap. The results of that analysis are shown in Table 9 on p. 50. [Structural pest actions were not reviewed because the vast majority of their violations involve applicators who apply too little termite-control chemicals to meet standards.]

The Center's review confirmed the saying among pesticide regulators that "the label is the law." Nearly half (43 percent) of the Pesticide Board's total enforcement actions over the five-year period involved *label violations*—that is, applicators who used pesticides "in a manner inconsistent" with the directions on product labels. Such violations can be very broad in scope, ranging from improperly mixing pesticides to spraying chemicals that drift away from the intended crop or pest. Nevertheless, the large number of label violations suggests that many applicators could be disregarding or failing to read the finely-printed directions on pesticide products.

The second-most common type of violation was the *non-licensed use* of pesticides, which

"Suspending or revoking a license is a really extreme action—because you're taking away a person's livelihood. With most of these people, this is the only kind of work they know. If you suspend their license, you put them out of business."

—CARL FALCO, ASSISTANT DIRECTOR
N.C. STRUCTURAL PEST CONTROL DIVISION

Table 9.
Types of Violations Cited by the N.C. Pesticide Board, 1988–92¹

Description of Violation	Total Number of Actions ²	Percent of Total ³
Label Violations (Failure to use or apply pesticides according to directions on product labels.)	168	43%
Non-Licensed Use (Commercial use of pesticides by non-licensed or non-certified applicators, or use of restricted-use pesticides by non-certified applicators.)	118	30%
Drift/Deposit (Pesticide applications that drift or land on non-intended targets, crops, property, roads, autos, people, or water bodies.)	105	27%
Sales (Product recalls; sales by non-licensed dealers; sales to non-licensed or non-certified users; sales of illegal, mislabeled, or unregistered products.)	86	22%
Disposal (Improper disposal, spills, or leaks of pesticides.)	61	16%
Storage (Improper storage, transportation, or labeling; lack of fire plan or inventory.)	37	9%
Non-Approved Use (Application of pesticides that are illegal, not registered, or not approved for target crops or pests.)	36	9%
Other (Fish or animal kills; contamination of food products.)	14	4%
Total Number of Cases⁴	391	—

¹ *Source:* N.C. Department of Agriculture. The N.C. Pesticide Board regulates agricultural and most commercial uses of pesticides. Table does not include actions taken by the N.C. Structural Pest Control Division, which primarily regulates exterminators.

² Total number of warning letters and settlement agreements that cited type of violation, 1988–92.

³ Percentage of total warning letters and settlement agreements that cited type of violation. Total is greater than 100 percent because warning letters and settlement agreements often cite applicators for multiple violations.

⁴ Sum of total actions does not equal total number of cases because individual cases can involve more than one type of violation.

accounted for nearly a third (30 percent) of all enforcement actions. Many of the license violations involve the application of restricted-use pesticides by nonlicensed or noncertified applicators—or those with expired licenses and certifications. Also included were those who applied general-use pesticides *commercially* without first obtaining a license, or those using expired licenses. An example of a typical license violation is a landscape gardener who applies pesticides for pay without first obtaining a license and certification. Although license violations usually result in minimal damages, the large number of such incidents suggests that many commercial pesticide users are not aware of licensing and certification requirements—or they just ignore the requirements.

More than one-fourth (27 percent) of the violations involved *drift/deposit* incidents in which pesticide sprays landed or drifted away from the targeted crop or pest. Such incidents are among the most serious violations because the pesticides involved can harm people's health. Drifting sprays also can damage non-targeted crops and gardens, pollute lakes and streams, and cause large fish and bird kills. Many of the drift violations involve gardeners and farmers who inadvertently spray pesticides on neighbors' property, often with minimal damage. But drifting pesticides landed on people and water bodies in more than 15 percent of the incidents over the five-year period.

Other types of enforcement problems included:

- *Sales violations* were involved in more than one-fifth (22 percent) of the pesticide enforcement actions. Such violations include: product recalls; sales of restricted-use pesticides by nonlicensed dealers; sales of restricted-use chemicals to nonlicensed and noncertified applicators; and sales of illegal, mislabeled, or unregistered products.
- *Disposal violations* were involved in 16 percent of the total incidents. Such violations include spills, leaks, and improper disposal of pesticide products.
- *Storage violations* were involved in 9 percent of the incidents. Such violations include storing pesticides in improper containers, incorrect labeling of products, transportation problems, and lack of inventories and fire plans.
- *Non-approved uses* were involved in 9 percent of the violation incidents. Such violations can include: using banned, illegal, or nonregistered pesticides; and using pesticides on crops or pests for which they are not approved.

- *Other* uncommon and varied violations—ranging from bee kills to the contamination of food products—were involved in 4 percent of the enforcement actions.

Violations by Pesticide Applicators

The Center also analyzed enforcement records to determine which types of pesticide applicators accounted for the most violations. (See Table 10 on p. 52 and Figure 5 on p. 53.) In *total numbers*, structural pest applicators were responsible for the most violations (37 percent), followed by unlicensed users (25 percent), certified private applicators (12 percent), commercial applicators (11 percent), aerial applicators (8 percent), dealers (5 percent), public operators (2 percent), and consultants (0.1 percent).

However, just looking at total violations does not take into account the number of applicators in each user category. A truer measure of compliance is the violation rate—or, *the number of violation incidents per applicator by type*.¹³ For example, although private applicators were involved in the second-highest number of incidents (81), they had the lowest violation rate (0.3 percent). By contrast, aerial applicators had the highest violation rate by a wide margin. Aerial applicators were involved in 27 violation incidents for every 100 licensed applicators—a rate four times higher than the next highest category, structural pest applicators (7.4 percent). All other categories of pesticide applicators had violation rates of 3 percent or less.

Aerial and structural pest applicators also accounted for virtually all of the *repeat* violators of pesticide regulations. (See Table 11 on p. 55.) Over the study period, seven structural pest applicators and five aerial applicators were involved in three or more violation incidents.

The higher violation rates and numbers of repeat offenders among aerial and structural pest applicators raise serious concerns. That's because those two groups of applicators have perhaps the greatest potential to affect public health and the environment. Although there are fewer than 200 licensed aerial applicators in North Carolina, such pilots typically treat much larger acreages of land than ground applicators. Plus, aerial-applied sprays are much more likely to drift off target. One researcher reports that 50 to 75 percent of the aerial-applied pesticides miss their target—compared to 10 to 35 percent for ground-applied chemicals.¹⁴ Although structural

pest applicators do not generally have problems with drift, they apply pesticides in and around thousands of homes and occupied structures—with the potential to affect people, pets, and private wells.

Several factors could help account for the higher violation rates and repeat offenses among aerial and structural applicators. Pilots say aerial problems are exaggerated by three factors: their high visibility; the large amounts of land they treat relative to other types of applicators; and the strictness of North Carolina's regulations, which they describe as among the harshest in the nation. "It is very nearly impossible for an aerial applica-

tor to apply chemicals in North Carolina without breaking a regulation," says Boyd Respass, a Beaufort County pilot and board member with the N.C. Agricultural Aviation Association.

North Carolina's aerial regulations prohibit the application or drift of any pesticide off a targeted site. In addition, the rules prohibit the deposit or drift of any pesticides within 25 feet of a public road, 100 feet of any residence, and 300 feet of schools, churches, hospitals, nursing homes, or other occupied buildings. Ground applicators of pesticides do not have to comply with those buffer zones. "A lot of the ground rigs are still spraying when we shut down—because we have

Table 10.
Violations of North Carolina Pesticide Regulations by License or Certification Type, 1988–92

License or Certification Type	Number of Licenses ¹	Total Incidents ²	Percent of Total ³	Violation Rate ⁴
Aerial Applicators	194	53	7.9%	27.3%
Structural Pest Applicators ⁵	3,428	252	37.4%	7.4%
Pesticide Dealers, Producers	986	30	4.5%	3.0%
Commercial Pesticide Applicators	3,509	74	11.0%	2.1%
Pest Control Consultants	65	1	0.1%	1.5%
Public Operators	2,443	14	2.1%	0.6%
Certified Private Applicators	28,650	81	12.0%	0.3%
Unlicensed Violators ⁶	NA	169	25.1%	NA

¹ Source: N.C. Department of Agriculture. Average annual number of licenses or certifications by category, 1988–92, except private applicators, which are averaged from 1991–92. The number of private certifications per year dropped about 50 percent in 1991, when the N.C. Pesticide Board began requiring periodic renewals of certifications. (Previously, they had been permanent.)

² Total violation incidents per category, 1988–92, that culminated in regulatory actions such as hearings or settlement agreements.

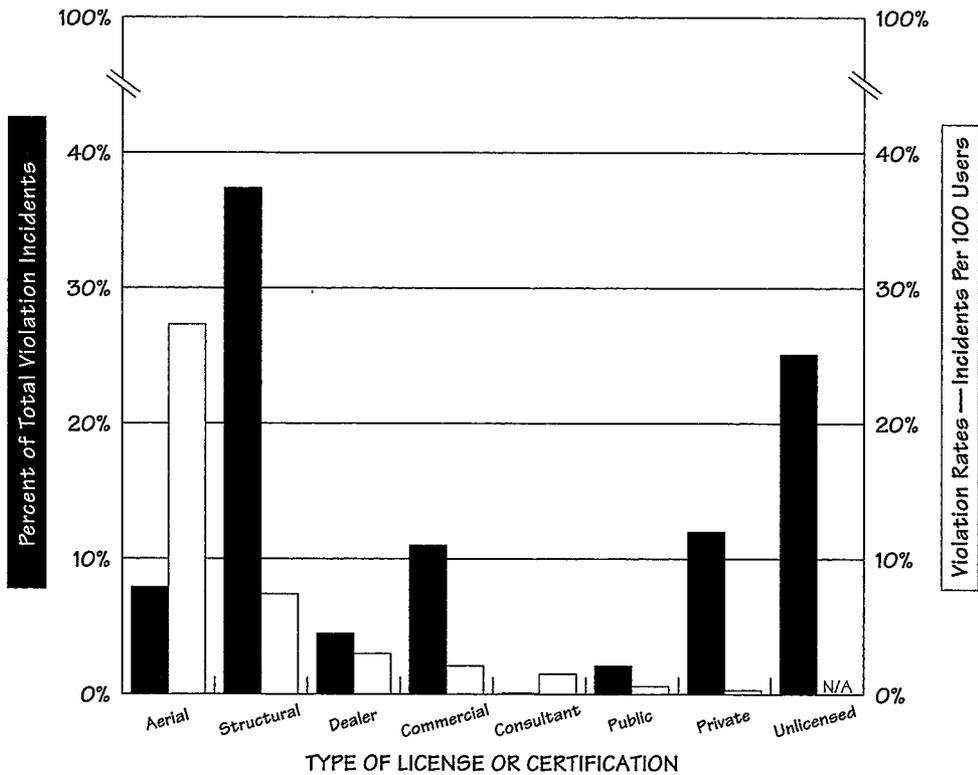
³ Percent of total violation incidents per category, 1988–92.

⁴ Violation Rate = Total Violations/ Number of Licenses x 100.

⁵ Average annual number for all registered structural pest control applicators (exterminators), including licensees, certified applicators, and technicians.

⁶ Includes unlicensed or uncertified users cited for violations by the Pesticide Board or the Structural Pest Control Division.

Figure 5.
Violations by Pesticide Applicator Types, 1988-92



Source: N.C. Department of Agriculture

to pay a lot closer attention to the weather,” says Wayne Slaughter, a Farmville aerial applicator and past president of the N.C. Agricultural Aviation Association.

Structural pest regulators say the higher violation rate for exterminators is primarily due to their rigorous inspection program. Plus, they say, few of the structural pest violations pose safety or environmental hazards. Instead, most structural violations involve exterminators who have not applied enough insecticides to meet standards for preventing termite damage. “Most of those violations do not represent misuse of structural pest control chemicals,” says Steve Taylor, the Raleigh exterminator. “Most of them have to do with paperwork violations or not putting down enough chemicals.” Nevertheless, such violations can be very serious to a person whose home

has been damaged by a termite infestation related to improper treatment.

Some exterminators also question the higher number of repeat offenses among structural pest applicators. That number is inflated, they say, because the Structural Pest Control Division generally cites licensed or certified applicators for substandard work done by the registered technicians who work under their supervision. “The problem with being a licensee in North Carolina is that you can have 100 employees, and if one of them screws up, you’re responsible for it,” says S. Alan King, a Rocky Mount exterminator.

Nevertheless, misapplications of pesticides by exterminators can have serious health and environmental consequences—because such chemicals often are applied in close proximity to living areas. State records show that some applications

of pest-control chemicals have contaminated wells, filled homes with noxious fumes, and even caused fish kills. (See the accompanying article, "Contaminated Wells, Odor Problems Sometimes Result from Exterminator Treatments," on pp. 16-18 for a discussion of potential hazards from structural pest control applications.)

Proposals for Reducing Excess Violations

Some observers, however, say the Department of Agriculture and its oversight boards should take further steps to reduce violations from exterminators and aerial applicators. "These are the two areas that are the most risky," says Spalt of the Agricultural Resources Center, the Carrboro environmental group that focuses on pesticides. The group is particularly concerned about aerial applicators because the pesticides they spray can spread far and wide.

"Drift from aerial applications can go literally miles," says Spalt, whose group supports a number of proposals aimed at preventing potential harm from aerial drift.¹⁵ Some of those proposals include:

- Increasing the buffer zone where aerial spraying is prohibited from 100 feet to 300 feet around residences.¹⁶
- Mandatory liability insurance for aerial applicators to pay for potential damages caused by accidents or misapplications of pesticides.¹⁷
- Requiring aerial applicators to notify people living or working near crop sites before applying pesticides.

Other proposals for limiting excess violations include more extensive training requirements and harsher penalties for repeat violators. Currently, the number of training hours needed for aerial applicators and exterminators to renew their certifications are not much different than for other user groups with much lower violation rates. (See Table 7 on p. 47.) Spalt of the Agricultural Resources Center says better training is particularly important for registered structural pest control technicians—who account for more than half of all exterminators yet are not tested or certified for their knowledge of pesticide safety. The same situation exists for the horticultural technicians who apply insecticides and herbicides for lawn service companies.

"The technicians are supposed to be operating under direct supervision, which means a

certified applicator should be on site with them," Spalt says. "But under direct supervision has been interpreted to mean in radio contact with a certified applicator. You can't supervise how somebody is applying pesticides if you're back in the office. It's a legal responsibility, rather than a preventive action for homeowners' safety."

James Lynn of the Structural Pest Control Committee, says most pest control firms have certified applicators accompanying their technicians while treating homes. But Lynn supports the adoption of stronger training and certification requirements for *all* exterminators. "Most people in this industry would rather see an industry that has nothing but certified applicators in it," Lynn says. "I think we need to increase the training requirements. I think there ought to be a yearly requirement."

The large number of violations by *unlicensed* applicators suggests that state could do a better job of educating home gardeners about safe pesticide use. Although the N.C. Department of Agriculture and the Cooperative Extension Service can provide free brochures on pesticide safety, such information often is not available at garden shops, nurseries, and other places where consumers purchase such chemicals.

"The Department of Agriculture may think they do a good job of increasing public awareness about the safe use of pesticides, but very few occasional gardeners know that 'the label is the law,'" says Mary Joan Pugh, a former member of the N.C. Pesticide Board. "Most people think the label on any pesticide product is just a guide."

Critics Say Penalties Not Consistent

Others say the Department of Agriculture needs to revamp its system for penalizing violators, particularly those cases that are handled through the Pesticide Board. Critics—including some Pesticide Board members—say the panel's fines often are inconsistent and don't reflect the severity of violators' offenses. Plus, repeat offenders account for a large number of the violation incidents among some groups, such as aerial applicators. For example, repeat offenders were involved in about 45 percent of all aerial application incidents in 1991 and 1992.

Much of the problem results from the way the Pesticide Board sets penalties—by negotiating the amounts of fines and lengths of suspensions with violators or their attorneys, says board member Greg Smith, a physician with the state Depart-

Table 11.
Top Repeat Violators of North Carolina Pesticide Regulations, 1988-92¹

Name	Number of Violation Incidents ²	License Type ³	Total Fines	Other Penalties
Roy W. Wood, Wood Spraying Service, Raeford (Hoke)	6	Aerial	\$3,950	6 months suspension
Herman Ray Meads, Elizabeth City (Pasquotank)	6	Aerial	\$2,800	none
Dudley Carroll Vann, Vann Aero Service, Greenville (Pitt)	5	Aerial	\$1,700	1 month suspension
S. Alan King, King Exterminating Co. of the Coast, New Bern (Craven) ⁴	4	Structural	\$9,900	3 months probation
Henry F. Kessler, Southern Pest Control, Charlotte (Mecklenburg)	3	Structural	\$2,000	18 months probation
Boyd W. Childers, C&C Exterminating Co., Hickory (Catawba)	3	Structural	\$1,400	none
Richard V. Hanson Jr., Spirittine Exterminators, Wilmington (New Hanover)	3	Structural	\$1,050	none
Isaac Floyd Jr., Floco Pest Control Inc., Rocky Mount (Edgecombe) ⁵	3	Structural	\$900	none
Randall A. Hill, Ranger Helicopter Services, Roanoke, Va.	3	Aerial	\$700	16 months suspension
John W. Fleming Jr., Fleming Pest Control, Mount Airy (Surry)	3	Structural	\$600	license revoked
Arvel R. Hill, H&L Pest Control, Dallas (Gaston)	3	Structural	\$500	18 months probation
Farmway Chemical Corp., Farmingdale, N.Y.	3	NA ⁶	\$400	NA
Alvin R. McCraw, Hendersonville (Henderson)	3	Private	\$300	1 month suspension
John Steve Newsome, Newsome Spray Service, Woodland (Northampton)	3	Aerial	0	3 months suspension

¹ Source: N.C. Department of Agriculture. Based on enforcement records from the N.C. Pesticide Board, which primarily regulates agricultural uses of pesticides, and the N.C. Structural Pest Control Division, which primarily regulates exterminators.

² Total number of settlement agreements and hearings in which applicator was cited from 1988 to 1992.

³ Aerial = Aerial applicators of pesticides; Structural = Exterminators or structural pest control applicators; Private = Private certified applicators, including most farmers.

⁴ King is also affiliated with King Exterminating Co. of Rocky Mount (Nash), which was not responsible for the violations listed above.

⁵ Floyd is now affiliated with Mantis Pest Control of Rocky Mount, which was not responsible for the violations listed above.

⁶ Not applicable — company not registered in North Carolina.

ment of Environment, Health, and Natural Resources. "It's a negotiated settlement, and it all depends on how good a negotiator someone is," says Dr. Smith, who compares the process to buying an automobile. "Some people pay full price for a car, and some people get 10, 20, or 30 percent off—depending on how good a negotiator they are. I'm not sure that's the best way to go."

To illustrate his point, Smith asked the Pesticide Section to prepare a report on repeat violations by aerial applicators from 1983 to 1992. The report showed a wide range of penalties for comparable violations, with repeat violators sometimes receiving more lenient penalties than first offenders. Consider the following examples, all involving pilots:

- Randall A. Hill of Roanoke, Va., was fined \$700 in 1992 for his first violation incident. That same year, he received a 16-month suspension for his second and third incidents.
- H. Ray Meads of Elizabeth City was fined \$250 in 1985 for his first violation incident. In 1990, Meads was fined \$2,500 for five separate violation incidents. Yet he was fined only \$300 for a seventh incident in 1991. Meads received a two-month suspension for an eighth incident, but he has appealed that penalty.
- J. Steve Newsome of Woodland received a one-month suspension in 1989 for his first and second violation incidents. In 1992, he received a two-month suspension for his third incident.
- D. Carroll Vann of Greenville was fined \$1,200 in 1990 for his first violation incident, yet only received a warning letter in 1992 for his second and third incidents. In 1993, he was fined \$500 and received a one-month license suspension for his fourth and fifth incidents.

In other cases, Smith has chided the board's staff for negotiating settlement agreements that don't reflect the severity of violations. For example, in March 1994, Smith urged the board to reject a \$400 settlement for a Wilmington golf-course owner charged with ordering his employees to apply paraquat to greens and fairways. "I think the \$400 settlement is too low," Smith told fellow board members. "Not only did this person knowingly break the law, but he also endangered the health and well-being of his employees. This particular pesticide is responsible for many, many cases of poisoning throughout the world."¹⁸

For the sake of consistency, Smith has suggested that the Pesticide Board and the Depart-

"What you want to do is get the bad apples out. But for those who make very minor violations, I can't see the purpose in dealing with them too harshly."

—DR. GREG SMITH, PHYSICIAN
N.C. DIVISION OF EPIDEMIOLOGY
MEMBER OF N.C. PESTICIDE BOARD

ment of Agriculture develop an enforcement matrix that sets standard fines and penalties based on factors such as the severity of violators' offenses, public health concerns, environmental damages, and prior offenses. Such a system would work like the "point system" for traffic violators in which repeat offenders can receive higher fines or get their licenses suspended. "What you want to do is get the bad apples out," Smith says. "But for those who make very minor violations, I can't see the purpose in dealing with them too harshly."

The Department of Agriculture's Structural Pest Control Division already uses an enforcement matrix in setting penalties for exterminators who violate regulations, Division Director Ray Howell says. "We have developed a matrix, and we use that to try and develop consistency," Howell says. Records show that the Structural Pest Control Committee penalizes repeat violators more consistently than does the Pesticide Board. For example, the panel typically fines exterminators about \$200 for a first offense, \$400 for a second offense, and \$600 for a third offense.

The use of penalty matrices also is commonplace in other state agencies with regulatory enforcement powers, such as the N.C. Division of Environmental Management. Former division director George Everett says that "a predictable response" is an essential component of an enforcement program. "I found that an enforcement matrix or penalty schedule did help in making enforcement more consistent," says Everett, now executive director of the Chemical Industry Council of N.C. "I also believe that repeat violators should be dealt with aggressively. Single violations in a program that has rules as strict as the aerial [applicator] program in North Carolina should not be unexpected. However, repeat

—continues on page 60

—continued from page 56

violators should be dealt with forcefully, and the use of suspensions and revocations can be very effective deterrents."

Pesticide Administrator John Smith says that adopting an enforcement matrix could limit the Pesticide Board's flexibility in considering all of the factors involved in cases. The Pesticide Section generally relies on the severity of violations in negotiating fines and suspensions, he says, but the agency deals with a much wider range of applicators and incidents than the structural pest division. Although Smith acknowledges that inconsistencies occur in some cases, he says that—"over the long haul"—more serious violations tend to earn harsher fines and suspensions. "You can mess up bad enough on the first incident to lose your license completely in North Carolina," he says.

Nevertheless, a number of current and past Pesticide Board members say they are confused by the Pesticide Section's negotiation process and support the development of a penalty matrix. "I think we really need to go in that direction," says board member Lu Ann Whitaker of Raleigh. "We need to have some way to determine whether we're giving [violators] a fair penalty. And we need to do something about the repeat offenders." Mary Joan Pugh, a past board member, says: "If you're going to have any consistency or any fairness, then you need to have some kind of a penalty matrix as a guide."

(Michele Arens, a Duke University law student, provided research assistance for this article.)

FOOTNOTES

¹ At the time of the Center's survey of state pesticide programs (August 1993), Nebraska was the only state that lacked enforcement powers. Since then, however, the Nebraska legislature has enacted legislation enabling the state to assume pesticide enforcement responsibilities from the EPA.

² For more information on the state's pesticide oversight boards and their relation to other such panels, see the N.C. Center for Public Policy Research's report, *Boards, Commissions, and Councils in the Executive Branch of North Carolina State Government*, 1984, pp. 77-95 and 192-194.

³ *North Carolina Pesticide Report*, N.C. Department of Agriculture, Report No. 283, 1992, p. 8.

⁴ See John H. Wilson, et al., "North Carolina Pesticide Laws and Regulations," Pesticide Training Manual, N.C. Department of Agriculture and N.C. Agricultural Extension Service, 1989, p. 8. This quote does not apply to structural pest control applicators, which are regulated under legislation separate from other pesticide applicators.

⁵ N.C.G.S. Chapter 143.

⁶ See N.C.G.S. 143-468. North Carolina already charged registration fees of \$30 per pesticide product. The new law

imposes additional assessments of \$25 per product for pesticides with sales less than \$5,000 a year, and \$50 per product for those with sales greater than \$5,000 a year.

⁷ N.C.G.S. 106-65.22-41.

⁸ Legislative Research Commission, Committee on Pest Control, Report to the 1989 Session of the General Assembly, Dec. 14, 1988.

⁹ The N.C. Department of Agriculture, in a news release dated June 2, 1994, stated that the Pesticide Board would accept nominations until July 11, 1994, for the following seats: three practicing farmers; one conservationist at large; one ecologist at large; one pesticide industry representative; one agribusiness representative; one local health director; one representative of a public utility or railroad company; one member of the N.C. Agricultural Aviation Association; one member of the public at large; and one person actively engaged in forest pest management. The board considered these nominations at its August 9, 1994, meeting—as this issue of *Insight* was going to press.

¹⁰ N.C.G.S. 106-65.22.

¹¹ In 1992, the Pesticide Section tested 1,711 pesticide products. Those tests found seven products that were adulterated, 94 that were deficient, seven that had excessive active ingredients, and 36 that were not registered.

¹² To support his argument, Nimocks cites an article by Nan-Yao Su, et al., "Measuring Termiticides," in *Pest Control*, September 1990, p. 24.

¹³ The Center calculated violation rates by dividing the number of violation incidents in each applicator type by the number of applicators in that category and multiplying the result by 100. Violation incidents were defined as pesticide cases that culminated in hearings or settlement agreements through the Pesticide Board or the Structural Pest Control Committee.

¹⁴ See David Pimentel, et al., "Environmental and Economic Costs of Pesticide Use," *BioScience*, Vol. 42, No. 10 (November 1992), p. 755.

¹⁵ For a discussion of the drifting potential of aerial sprays, see Pimentel, Note 14 above, p. 755.

¹⁶ The Legislative Research Commission's Committee on Pest Control recommended such a change to the 1989 session of the N.C. General Assembly. Rep. Bertha Holt (D-Alamance) introduced a bill, H.B. 389, that would have widened the buffer zone to 300 feet, but the measure died in committee.

¹⁷ From 1953 to 1971, aerial applicators were required to carry liability insurance under the N.C. Aerial Crop Dusting Law (G.S. 4B, Chapter 105), which was superseded by the N.C. Pesticide Law of 1971. Bill Buffalo, state affairs manager for Rhone-Poulenc Ag Co. and former administrator of the state pesticide program, says the requirement was dropped because the cost of insurance premiums threatened to drive many aerial applicators out of business. "The cost was unreal," he says. "It really was a burden."

¹⁸ The Pesticide Board reconsidered the case at its April 1994 meeting, directing its staff to negotiate a \$2,000 settlement—the maximum fine for a single violation. However, the board's attorneys said that could be difficult because the golf-course owner, Thomas D. Wright of Wilmington, did not actually apply the pesticide himself. As a result, the board also directed its staff to draft legislation that would allow it to fine employers who order their workers to apply pesticides illegally. The General Assembly would have to approve the change.