Module 2

Texas Pesticide Applicator Rules

What’s FIFRA

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA):

- provides for federal regulation of pesticide distribution, sale, and use.
- All pesticides distributed or sold in the United States must be registered (licensed) by EPA.
- Before EPA may register a pesticide under FIFRA,
  - the applicant must show, among other things, that using the pesticide according to specifications "will not generally cause unreasonable adverse effects on the environment."

Texas Response

- 1907 Texas Department of Agriculture to oversee pesticide registration
- 1971 Texas Structural Pest Control Board is created as the Agency to oversee indoor structural pest
- 1972 – 2007 Two types of licenses in TX
  - SPS – license holders indoors but also exterior and weed applications
  - TDA – license holders private or landscape management for cities, golf, cemeteries
- 2007 SPCB abolished all pesticide applicator licenses under TDA
  - Indoor – Structural Pest Control Service
  - Outdoor – SPCS and TDA AG
    - Landscape Management

Agency Oversight: TDA

- Registers pesticides, licenses applicators
- Enforces Structural Pest Control Act
- Oversees food safety programs impacting schools

Agency Oversight: DSHS

- Inspects cafeterias twice yearly
- Handles infectious disease outbreaks, IAQ and asbestos
- Supports public health interventions

Agency Oversight: TPWD

- Wildlife trapping and relocation rules
- Game Warden involvement for protected species
- Restrictions on transporting rabies-vector species

TEXAS PARKS & WILDLIFE

Licensing Categories

Commercial: For hire; full services

Non-commercial: Employee applying within their facility

Political Subdivision: For city/county/ISD employees

School Licensing Requirements

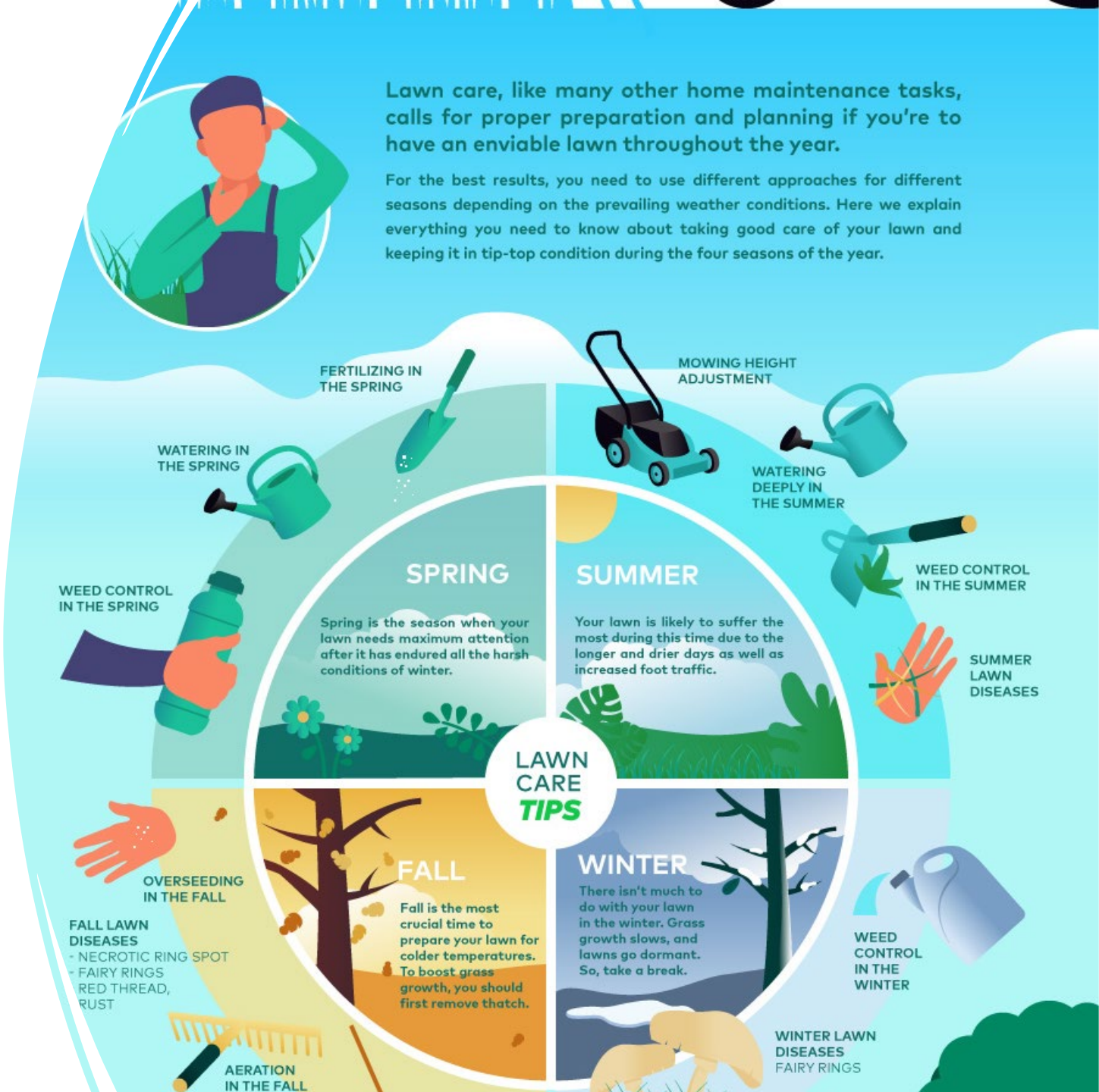
- Only licensed applicators may apply pesticides on school grounds
- Certification optional but beneficial
- Technicians and Apprentices must work under commercial certified applicators
- Noncommercial political subdivision license holders have exceptions
  - SPCS – take 8-hour class, study for exams, pass exams general and categories
  - TDA 3A- Study for exams, pass general and categories. Able to train unlicensed employees under direct supervision clause

SPCS Licensing

- Covers indoor pest control, glue boards, rodent work
- Commercial Certified applicator responsible for technicians
- Noncommercial Political License holders
  - No one can work under their license
- Applicator must hold category-specific licenses
  - Pest, Termite, Weed, Lawn & Ornamental most common categories

License Qualifications

- Landscape Management 3A
  - Anyone who makes a passing score on the General Standards pesticide applicator examination, including laws and regulations,
  - **and on one or more category exams**
    - will be eligible to be certified in those categories or subcategories for which a passing score was received and shall be licensed as soon as all other licensing requirements are met.



License Qualifications

Structural Pest Control Service (must qualify 1-5)

1. Have verifiable employment in the pest control industry under the supervision of a licensed certified applicator for at least twelve (12) months out of the past twenty-four (24) months and must have possessed a technician license for at least six (6) months during that time period;
2. Furnish proof of previous verifiable employment experience in the pest control industry, including out-of-state experience in pest control of at least twelve (12) months out of the past twenty-four (24) months. The proof of experience must be provided by the applicant in the form of a letter from the appropriate licensing entity stating the type of license held and how long the applicant has held the license;
3. Have a degree or certificate in an area of the biological sciences, related to pest control, from an accredited two (2) or four (4) year college or university;
4. Complete a Department approved minimum six (6) hour certified noncommercial/technician training course;
5. Have previously held a certified applicator license issued by the Structural Pest Control Board or the Department that can be verified by the Department.

Apply to TDA for Your License

Structural Pest Control Division

- Commercial
- Noncommerical

Categories

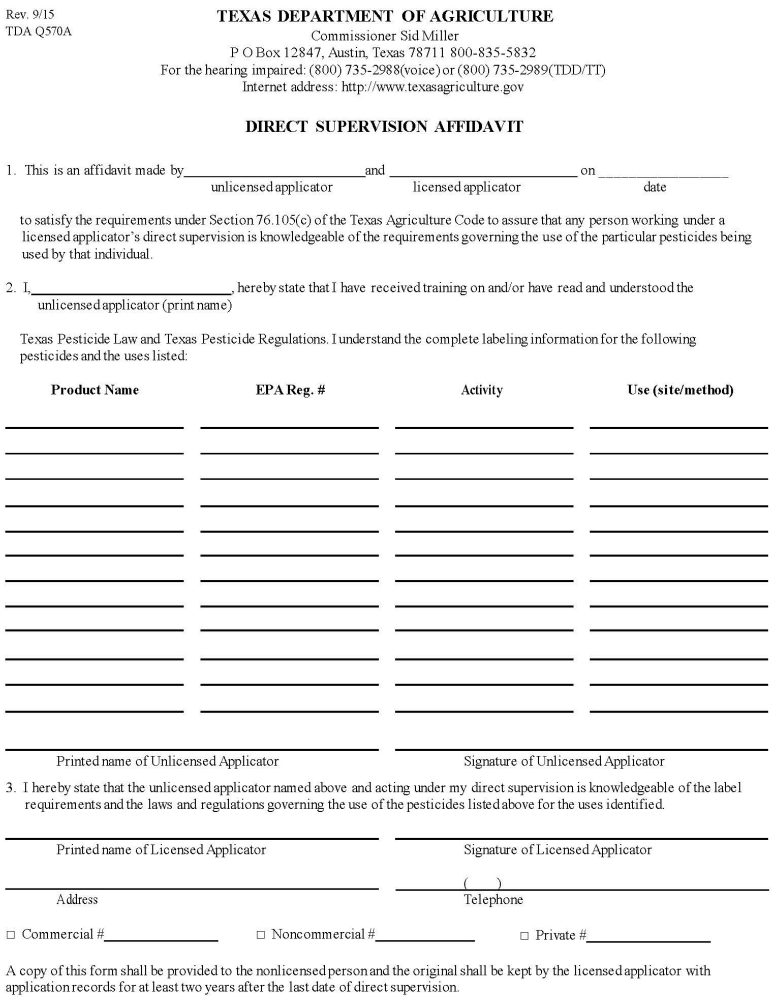
- Pest
- Lawn & Ornamental
- Weed
- Termite

- Pesticides Division
  - Private Applicator
  - Commercial
  - Noncommercial
  - Noncommercial Political Subdivision
- License Categories
  1. Agricultural pest control
  2. Forest pest control
  3. **Lawn and ornamental plant pest control**
     - A. **Landscape Management**
     - B. **Greenhouse**

  12. Public health pest control (vector control):

TDA 3A License Details

- For outdoor grounds management
- Allows supervision of unlicensed workers
- Annual training + affidavit documentation required



Rev. 9/15
TDA Q570A

TEXAS DEPARTMENT OF AGRICULTURE
Commissioner Sid Miller
P O Box 12847, Austin, Texas 78711 800-835-5832
For the hearing impaired: (800) 735-2988(voice) or (800) 735-2989(TDD/TT)
Internet address: http://www.texasagriculture.gov

DIRECT SUPERVISION AFFIDAVIT

1. This is an affidavit made by _____ (unlicensed applicator) and _____ (licensed applicator) on _____ (date)

to satisfy the requirements under Section 76.105(c) of the Texas Agriculture Code to assure that any person working under a licensed applicator's direct supervision is knowledgeable of the requirements governing the use of the particular pesticides being used by that individual.

2. I, _____ (unlicensed applicator (print name)), hereby state that I have received training on and/or have read and understood the Texas Pesticide Law and Texas Pesticide Regulations. I understand the complete labeling information for the following pesticides and the uses listed:

Product Name	EPA Reg. #	Activity	Use (site/method)

_____ Printed name of Unlicensed Applicator

_____ Signature of Unlicensed Applicator

3. I hereby state that the unlicensed applicator named above and acting under my direct supervision is knowledgeable of the label requirements and the laws and regulations governing the use of the pesticides listed above for the uses identified.

_____ Printed name of Licensed Applicator

_____ Signature of Licensed Applicator

_____ Address

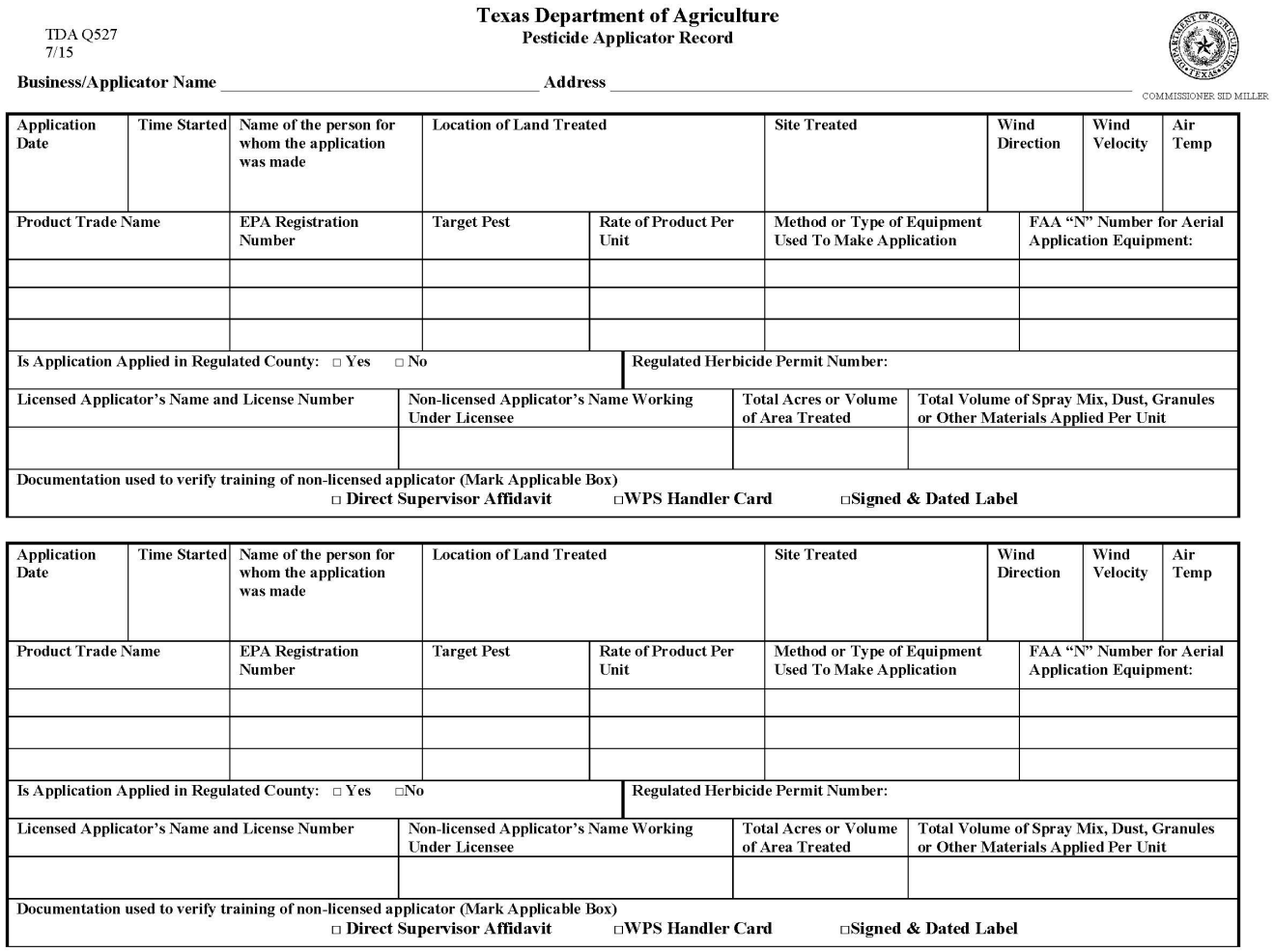
(___) _____ Telephone

□ Commercial #_____ □ Noncommercial #_____ □ Private #_____

A copy of this form shall be provided to the nonlicensed person and the original shall be kept by the licensed applicator with application records for at least two years after the last date of direct supervision.

Application Use Records

- Name/address
- Name pesticides/devices used
- Total amount applied
- Device used/total number
- Mixing rate for formulations
- Purpose (target pest)
- Date and time
- Service Address
- Name and License # of person(s) *receiving training, supervising, and applying pesticides or using pest control devices and the TPCL number (and letter if applicable) of the commercial business for which they are performing structural pest control services*
- *Outdoor applications require wind direction and velocity, outdoor temp*



TDA Q527
7/15

Texas Department of Agriculture
Pesticide Applicator Record

COMMISSIONER SID MILLER

Business/Applicator Name _____ **Address** _____

Application Date	Time Started	Name of the person for whom the application was made	Location of Land Treated	Site Treated	Wind Direction	Wind Velocity	Air Temp

Product Trade Name	EPA Registration Number	Target Pest	Rate of Product Per Unit	Method or Type of Equipment Used To Make Application	FAA "N" Number for Aerial Application Equipment:

Is Application Applied in Regulated County: □ Yes □ No — Regulated Herbicide Permit Number:

Licensed Applicator's Name and License Number	Non-licensed Applicator's Name Working Under Licensee	Total Acres or Volume of Area Treated	Total Volume of Spray Mix, Dust, Granules or Other Materials Applied Per Unit

Documentation used to verify training of non-licensed applicator (Mark Applicable Box)
□ Direct Supervisor Affidavit □WPS Handler Card □Signed & Dated Label

Application Date	Time Started	Name of the person for whom the application was made	Location of Land Treated	Site Treated	Wind Direction	Wind Velocity	Air Temp

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Documentation used to verify training of non-licensed applicator (Mark Applicable Box)
□ Direct Supervisor Affidavit □WPS Handler Card □Signed & Dated Label

PESTICIDE APPLICATION APPROVAL FORM FOR SCHOOL DISTRICTS

Description of pest problem: _____

_____

Justification for use: _____

_____

Application Site: _____

_____

Name of Pesticide: _____

EPA Registration #: _____

Category of Pesticide ☐ **Green** ☐ **Yellow** ☐ **Red**

Green Category pesticides may be used at the discretion of the licensee. Approval may or may not be necessary, depending on School IPM Policy
Use of **Yellow Category** pesticides requires written approval from the Certified Applicator. A copy of this approval must be sent to the IPM Coordinator within two (2) business days of application. **Yellow Category** approvals shall have duration of no longer than six (6) months or six (6) applications per site, whichever occurs first.

Use of **Red Category** pesticides requires written approval from the IPM Coordinator prior to application. **Red Category** approvals shall have a duration of no longer than three (3) months or three (3) applications per site, whichever is first.

If Incidental Use: _____ Date: _____
(Staff Member)

Approval of Certified Applicator: _____ Date: _____
(If applicable)

Approval of IPM Coordinator: _____ Date: _____
(If applicable)

Forwarded to: IPM Coordinator Date: _____

Approvals shall be kept by the Responsible IPM Coordinator with the pesticide use records for a minimum of two (2) years after last application.

- Be sure that you obtain justification forms for indoor and outdoor use

Justification Form

TEXAS A&M AGRILIFE EXTENSION

ENTO-PU-146
September 2024

Recognizing Green Category Pesticides for Use in Texas Schools

Janet Hurley[1], Dylan Mackay[2], and Michael Merchant[3]

In 1991, the Texas Legislature amended the Structural Pest Control Act (SPCA) to require that public school districts have an Integrated Pest Management (IPM) program. Since 1995, all public school districts in Texas must have a written pest management policy, designate and train a district IPM coordinator, and ensure that licensed applicators perform all pesticide applications. The IPM coordinator keeps detailed records of all pesticide applications and confirms that the district or its designated pest control provider uses the least hazardous methods to control pests. School IPM rules are overseen by the Texas Department of Agriculture, Structural Pest Control Division (SPCS).

In 2007, the legislature updated the laws to make regulatory guidelines for IPM in schools more specific. Texas school pesticide regulations classify all pesticides as Green, Yellow, or Red Category products.

Green Category pesticides pose the least potential hazard to people and the environment. They do not require prior written approval from the IPM coordinator and may be applied at the licensee's discretion under the guidelines of the school district IPM program. However, there are a few considerations:

- When using Green Category pesticides indoors, post a notification in the area 48 hours in advance (see SPCS rules for pest control signs §7.146).
- When applying pesticides outdoors, post a notification in the area at the time of application. You can remove the sign after the application is complete.
- For both indoor and outdoor application, students must not be present during the application but can reenter the area when the application is complete unless the product or district requires a different reentry interval.

Yellow Category products usually include the Environmental Protection Agency signal word CAUTION on the label. They are typically residual insecticide products, such as Talstar® Professional insecticide, Suspend® SC, and Termidor® SC termiticide/insecticide. At the same time, most herbicides that have a CAUTION signal word fall under this category as well. These pesticides require approval by a certified applicator, and you must provide a copy of the approval form to the IPM coordinator.

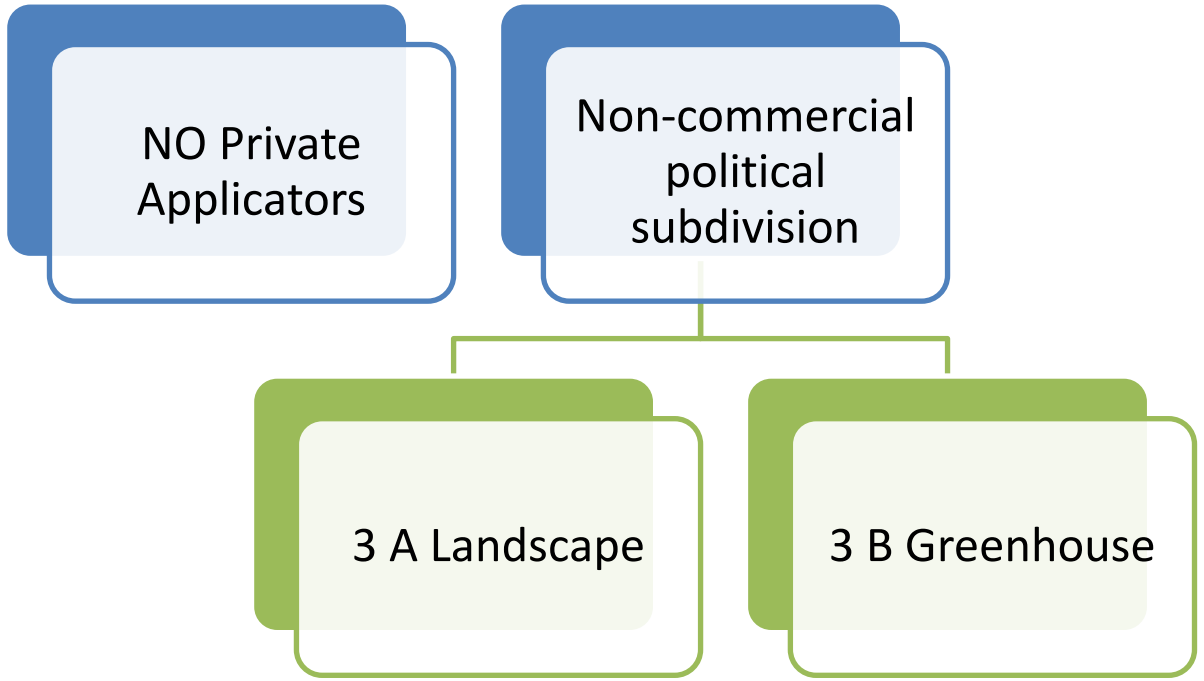
Ants on liquid bait.
Source: Michael Merchant

Apply Green Category pesticides when students are not present. They may return when the application is complete or the reentry interval expires.
Source: Pixabay

[1] Senior Extension Program Specialist IPM
[2] Intern, Department of Entomology, 2024
[3] Retired Urban Entomologist

SCHOOL GARDENS, AG SCIENCE AND GREENHOUSES – SPECIAL AREAS THAT REQUIRE COOPERATION WITH SEVERAL COLLABORATORS WITHIN THE DISTRICT

Under District Policy – Only Licensed Applicators



IPM & AG Science Programs

Texas Department of Agriculture Policy on Agriculture Education Pesticide Applications at Public School Districts

Texas Department of Agriculture (TDA) has received requests for guidance regarding Integrated Pest Management (IPM) in Schools as it relates to pest control in ag barns, school gardens, and greenhouses located on public school premises. This policy document aims to clarify to all involved with ag barns, school gardens, and greenhouses pest control requirements under the Structural Pest Control Act and its related regulations.[1] The goal of these requirements is to protect the health and welfare of students of public-school districts.

Under the Structural Pest Control Act, TDA establishes IPM standards used in schools and on school premises ("School IPM").[2] School IPM requires school districts to utilize the least toxic methods available to control pests. School IPM establishes categories of pesticides schools are allowed to apply, specifies re-entry intervals, mandates the posting of notices for indoor and outdoor applications of pesticides, requires approval prior to pesticide applications, and further requires maintaining records of the application of pesticides. Additionally, TDA has set standards for how school districts establish, implement, and maintain IPM programs to adhere to School IPM. School districts are required to adopt IPM programs that incorporate School IPM requirements and to designate IPM coordinators to implement their adopted IPM programs.

Any application of pesticides performed on school district properties are required to follow School IPM.[3] . This would require all pesticide applications, including agricultural applications for school ag barns, gardens, or greenhouses to follow all established requirements of school districts' IPM programs. As stated, a school district's IPM Coordinator is responsible for implementing the IPM program. Anyone involved or planning to be involved in agricultural pest control activities on school property should consult with the IPM Coordinator to ensure that all pesticide activities are compliant with IPM program protocols. Likewise, an IPM Coordinator should have knowledge of anyone planning or involved in agricultural pest control activities on school property and should ensure these activities are compliant with IPM program protocols.

Notice posting for pesticide applications for ag education purposes on school property must be consistent with School IPM. A record of applications must be maintained regardless of the classification of the pesticide (e.g. general use pesticide, restricted use pesticide, etc.) consistent with the requirements of the licensee making the application.

All pesticide application records must be maintained for two years. Ag education pesticide applications should be reflected in the school district's IPM policy.

Ultimately, the goal of the IPM program is to ensure that our schools remain a healthy and safe environment for all who attend or work on these campuses. Following IPM program protocols provides awareness of all pest control activities and can help prevent unapproved pesticide applications, which can have severe unintended consequences. If you have any questions, please contact the TDA at 1-866-918-4481. More information regarding IPM in schools can be found at the following website: TexasAgriculture.gov/SPCS.

https://texasagriculture.gov/Regulatory-Programs/Pesticides/Structural-Pest-Control-Service/School-Integrated-Pest-Management

Greenhouses

Special Areas: Greenhouses

- Teachers may require 3B license
- Coordinate treatment plans with IPM Coordinator
- Plants can harbor insects even indoors

Coordination – Cooperation

- Typically, this area is for vocational education – floriculture
- Sell or Donate
- Educational components and using chemicals
- Encourage teacher licensing to show professionalism
- Good place to grow the IPM program

Special Areas: Livestock Facilities

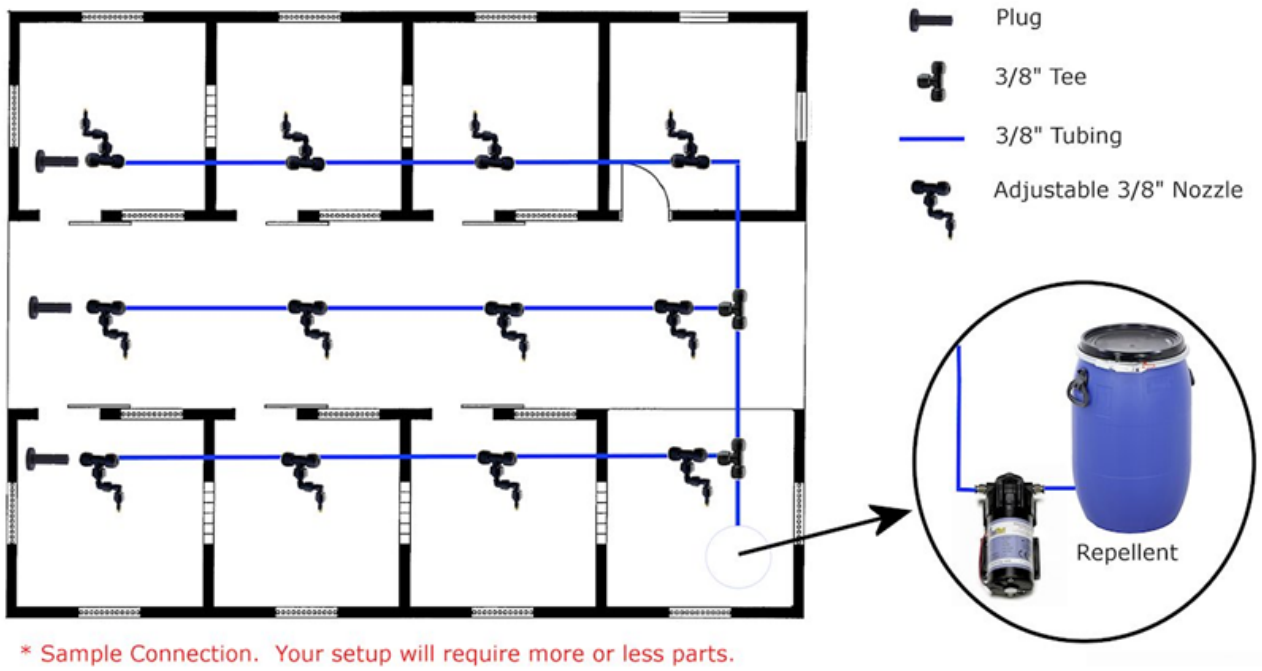
- High risk for flies, rodents, parasites
- May require coordination with TDA/DSHS
- Animals shown in competitions need strict oversight

Reminders about Ag Barns

- Manure management is essential
- Storage of food products
  - Keep in airtight containers
  - Watch for spillage
  - Keep water troughs clean and free of debris
  - Store hay and other bedding material away from water


NO
HAY
IN
BARN

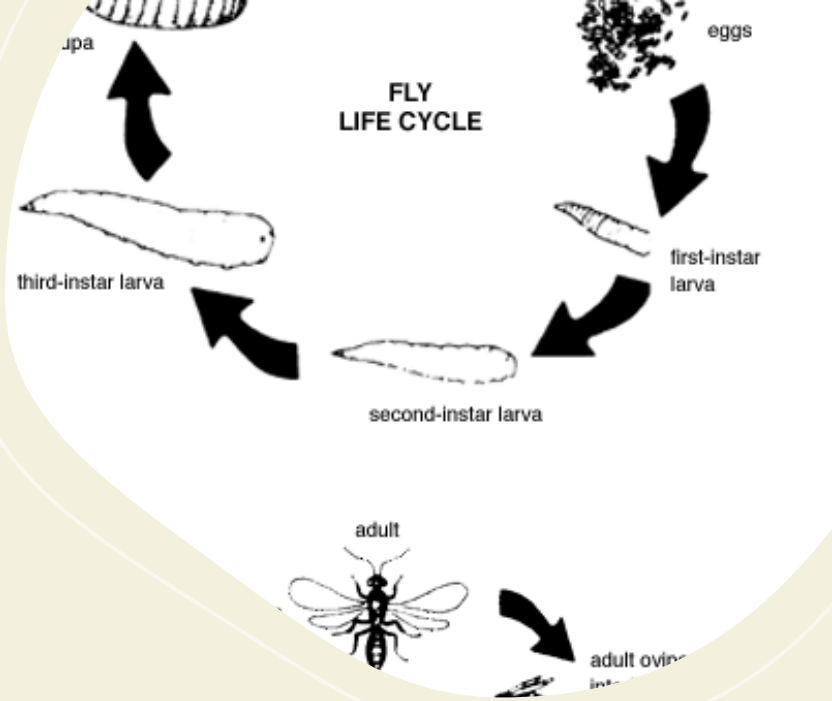
Fly Misting Systems



Misters generally prohibited due to exposure risk
Yellow Category
Need a pest control license to add insecticides

FLY PREDATORS

Biological Control



Parasitoids

- Kill their hosts
- Adults free-living; immatures parasitic
- Do not sting humans
- Many native to Texas; available commercially
- Effective on horn, house and stable flies

Special Areas: Food Gardens & Conservation Gardens

- Edible crops restrict what pesticides can be used
- Pollinator protection required

Things to remember

- Location
- Volunteers
- Chemical Use and Purchase
- To sell or not to sell

Teachers & Volunteers

Teachers cannot apply pesticides without license

Volunteers and parents prohibited from applications

Coordinator must oversee all pest management actions

WORKING WITH CONTRACTORS

Types of Service Agreements

Contracts

- Legally binding exchange of promises or agreement between parties that the law will enforce.
- Two types
  - Binding
    - Requires commitment between two parties
  - Non-binding
    - Agreement to agree
    - Not enforceable

Bid Specifications

- Written by purchasing
  - Cookie cutter
- Directions to vendors
  - In some cases, gives vendors an idea of what you are looking for
- Very generic
  - Generally, refers to specific areas like kitchens, lounges and not much else
  - Calls for summer cleanout treatment
  - Does not ask for any types of monitoring

Request for Proposals

- Not generic
  - Allows you to ask for specific coverage
- Allows for specific directions
  - How often for fire ant control
  - Inspections and monitoring
  - Non-chemical control
- Ability to set pre-award meetings
  - Most important – meet face-to-face with each potential PCO

Once you have a contract now what?

Set up initial face-to-face meeting

- Important so there are no misunderstandings later

Review contract

- What do you expect
- What do they expect

IPM objectives

Monthly Monitoring

- What is your definition and what is theirs?

Fire Ant Control

- How important is this
- Bid by mound, by acre, how are you doing this?

Monthly service reports

- Invoicing vs. service tickets (application use records)
- Justification for use forms
- Do they meet with you?

What does Monitoring Mean

- State says – must monitor
- Inspections, sticky traps, sample counts
  - Before they “spray” what do they “see”
  - Can you spot a monitor on your campuses?

Develop a protocol

- Where will monitors be located
- What will they report
- What triggers an application
  - One roach doesn't mean we spray
  - What about non-chemical controls
  - Will the contractor supply IPM plans
  - Will the contractor use your IPM plans
  - What is a threshold?

Keeping on top of Contractor

- Set up routine meetings
  - Don’t wait for them to call you – you call them
- Talk with staff
  - Food service, custodial, maintenance
- Take a walk
  - Search for monitoring devices
- Remember the 4 principles of IPM
  - Evaluation is step 4

What to do when it all goes wrong

Review contract

- Understand what contractor is responsible for
- Periodically check to see if items are being followed

Know who to call

- Who is responsible in the district
- Who did you talk to – salesperson, owner, etc.

When to become concerned

Tech time is reduced, complaints are up

- From 1 hour to 15 minutes

Don’t see evidence of monitoring

- Where are all the sticky traps?

Don’t see notes on service tickets

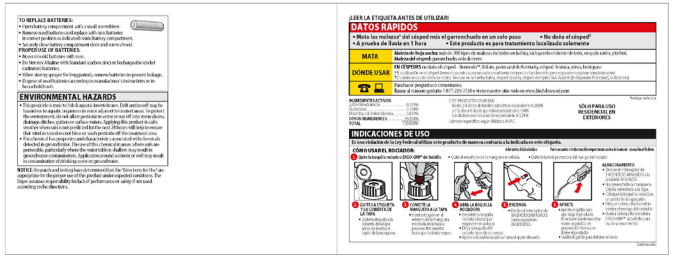
- No comments on exclusion controls, sanitation, etc.

Solution to all pest problems – Yellow

- Constantly receiving justification forms
- Or worse they are not giving you these forms thinking products are Green

Concerns Cont

- Not supplying you with MSDS and Labels
- See excessive use of chemicals
  - Service ticket states “inspected for pest – then you see chemical controls” – no evidence of monitoring
  - At every service visit a chemical is used



Justification forms

- Submitted prior to treatment – best
- Submitted within 48 hours after treatment – acceptable
- Submitted within 1 week – passing
- Submitted later than 2 weeks after treatment – or never – UNACCEPPTABLE

Exceptional Contractors

Provides you with a list of pesticide products, plus labels and SDS sheets

- In advance – understands IPM principles

Works with YOU to develop a list of structural and landscape improvements

- Offers campus inspections

Helps You identify problem areas

Solutions to pest problems are not chemically driven

- Help you with training or educating staff about pest problems.

Revised–May 2024

Agriculture, Food, and Natural Resources Career Cluster

The Agriculture, Food, and Natural Resources (AFNR) career cluster focuses on the essential elements of life, food, water, land, and air. This career cluster includes occupations ranging from farmer, rancher, and veterinarian to geologist, land conservationist, and florist.

Statewide Program of Study: Plant Science

The Plant Science program of study focuses on occupational and educational opportunities associated with the science, research, and business of plants and other living organisms. This program of study includes the application of biology and life science to real-world life processes of plants and vegetation, either in laboratories or in the field.

Secondary Courses for High School Credit

Level 1
- Principles of Agriculture, Food, and Natural Resources

Level 2
- Landscape Design and Management
- Turf Grass Management
- Greenhouse Operation and Production
- Greenhouse Operation and Production + Agricultural Laboratory and Field Experience
- Entrepreneurship I

Level 3
- Viticulture
- Horticultural Science
- Horticultural Science + Agricultural Laboratory and Field Experience
- Floral Design
- Floral Design + Agricultural Laboratory and Field Experience

Level 4
- Advanced Plant and Soil Science
- Advanced Floral Design
- Career and Technical Education Project-Based Capstone
- Practicum in Agriculture, Food, and Natural Resources
- Practicum in Agriculture, Food, and Natural Resources + Extended Practicum in Agriculture, Food, and Natural Resources
- Practicum in Entrepreneurship
- Practicum in Entrepreneurship + Extended Practicum in Entrepreneurship
- Career Preparation for Programs of Study
- Career Preparation for Programs of Study + Extended Career Preparation
- Scientific Research and Design

Aligned Advanced Academic Courses

AP or IB	AP Biology AP Environmental Science IB Biology SL IB Biology HL	AP Chemistry IB Chemistry SL IB Chemistry HL
Dual Credit	Dual credit offerings will vary by local education agency.	

Students should be advised to consider these course opportunities to enrich their preparation. AP or IB courses not listed under the Secondary Courses for High School Credit section of this framework document do not count towards concentrator/completer status for this program of study.

Work-Based Learning and Expanded Learning Opportunities

Work-Based Learning Activities	• Work in a part-time job at a landscaping company to learn about production and management of plants. • Intern at an agricultural research company, working alongside a biological technician to learn about application of biology to plant production
Expanded Learning Opportunities	• Participate in an FFA career, leadership, and speaking contest like an agriscience fair • Participate in an industry-related competition like an agriscience fair

Aligned Industry-Based Certifications

- Agricultural Biotechnology
- BASF Plant Science Certification
- Commercial/Noncommercial Pesticide Applicator
- Commercial/Noncommercial Pesticide Applicator "Vegetation Management" License
- Horticulture - Landscaping - Job Ready
- Landscape Irrigator
- Principles of Floral Design Certification
- Production Agriculture - Job Ready
- Texas Certified Landscape Associate (TCLA)
- Texas Certified Nursery Professional
- Texas State Florists' Association Knowledge Based Floral Certification
- Texas State Florists' Association Level I Floral Certification
- Texas State Florists' Association Level II Floral Certification

TEA Texas Education Agency

Successful completion of the Plant Science program of study will fulfill requirements of the Business and Industry endorsement.

Example Postsecondary Opportunities

Apprenticeships
- Horticulturist

Associate Degrees
- Biology/Biological Sciences
- Biological and Physical Sciences

Bachelor's Degrees
- Horticulture
- Plant Pathology/Phytopathology

Master's, Doctoral, and Professional Degrees
- Plant Breeding
- Botany/Plant Biology

Additionall Stackable IBCs/License
- Nursery Floral License
- Horticulturist Certification

Example Aligned Occupations

Pesticide Handlers, Sprayers, and Applicators, Vegetation
Median Wage: $46,153
Annual Openings: 205
10-Year Growth: 17%

Biological Technicians
Median Wage: $45,787
Annual Openings: 879
10-Year Growth: 14%

Farmers, Ranchers, and Other Agricultural Managers
Median Wage: $65,490
Annual Openings: 28,020
10-Year Growth: 4%

Data Source: TexasWages, Texas Workforce Commission. Retrieved 3/8/2024.

For more information visit:
https://tea.texas.gov/academics/college-career-and-military-prep/career-and-technical-education/programs-of-study-additional-resources

Plant Science

High School Student Level Education