



N.C. PESTICIDE BOARD

July 9, 2024

10:00 A.M.

Steve Troxler Agricultural Sciences Center
4400 Reedy Creek Rd.
Raleigh, NC

AGENDA

1. Ethics Reminder – Ms. Gwen Pitt, Chair, N.C. Pesticide Board

MANDATORY ETHICS INQUIRY - North Carolina General Statute 138A-15(e) mandates that the Board Chair shall remind all Board Members, of their duty to avoid conflicts of interest and appearances of conflict under this Chapter, and that the chair also inquire as to whether there is any known conflict of interest or appearance of conflict with respect to any agenda item coming before the Board at this time. It is the duty of each Member who is aware of such personal conflict of interest or of an appearance of a conflict, to notify the Chair of the same, and to refrain from inappropriate participation on that agenda item.

2. Consider Board Minutes from the January 9, 2024, meeting

3. Presentation - Tribute of Appreciation Plaque to Dr. Colleen-Hudak Wise

4. Statement of Economic Interest Evaluation and Appointment to the NC Pesticide Board:
Dr. Dianne Farrer

5. Private Applicator Online vs In-Person Training Discussion
- John Feagans, SPCPD

6. Consider Settlement Agreements

N.C. Department of Agriculture and Consumer Services,
Structural Pest Control and Pesticides Division, v.

IR22-011B Charles V. McLeod

IR22-049 Lowes Home Centers, LLC (Jose Martinez)

IR22-064 Jose S. Cruz

IR22-067A Justin Van Staalduinen

IR23-001B Jack Leonhardt

IR23-005 Raul Montes

IR23-016 Teresa L. Cole

IR23-055 Melinda Fitzgerald

AGENDA ITEM

#2

NORTH CAROLINA PESTICIDE BOARD MEETING MINUTES

January 9, 2024

Ms. Pitt called the meeting to order with all members present.

First Agenda Item: Mandatory Ethics Inquiry Reminder

Ms. Pitt read the mandatory Ethics Inquiry Reminder into the minutes. Hearing no conflicts, the meeting proceeded.

Second Agenda Item: Consider the Board Minutes for the September 12, 2023, Board Meeting

After a brief review of the minutes, Ms. Hernández-Pelletier asked for the spelling of her name to be corrected. Next, Ms. Pitt asked for a motion.

Dr. Hudak-Wise MOVED to approve with amendments, SECONDED by Dr. Kirkman. MOTION CARRIED.

Third Agenda Item: Pesticide Environmental Trust Fund, Proposal

Dr. Robin Tutor Marcom, NC Agromedicine Institute, presented the Board with a funding request for Respiratory Protection: Where are we now? Program in the amount of \$30,000.00. to continue to off-set the cost of respirators/cartridges and to continue its respiratory protection education program. After a brief discussion, Ms. Pitt thanked Ms. Marcom for her presentation.

Dr. Savinelli MOVED to approve as prepared, SECONDED by Dr. Hudak-Wise. MOTION CARRIED.

At this time, Ms. Pitt asked Dr. Wayne Buehler, NCSU, to address the Board. Dr. Buehler presented the members with the final version of the NC Private Pesticide Applicator Certification/Recertification Program, 2024 to 2026, for their future reference.

Ms. Pitt then asked Board member Dr. David Lipton to present the article he had found and wanted to present to the Board. The article is titled "Déjà Vu, Why Are OSHA's Top Ten Citations Almost the Same?"

After discussion the Board moved on to the remaining agenda items.

Fourth Agenda Item: Consider Settlement Agreements

The Board heard the settlements in groups.

Randy McKinnon (IR22-010), owner of Carolina Green Lawn Care based in High Point, agreed to pay \$1,200 for engaging in the business of pesticide applicator without a license. Employees applied pesticides for the business although no one with the business had a commercial pesticide license. McKinnon had previously been issued a Notice of Non-Compliance for the same violation.

Paul R. Sasnett (IR22-013), a private pesticide applicator east of Washington, agreed to pay \$1,200 because an employee on his farm burned plastic pesticide jugs, which is improper disposal, violating the pesticide's label and provisions of state law.

Sandy A. Langdon (IR22-015), a private pesticide applicator north of Dunn, agreed to pay \$600 for improper application of a soil fumigant pesticide near Coats, which lacked required buffer zones, signage, and a fumigation management plan.

Shawn W. Heater (IR22-022), a licensed commercial pesticide applicator and the owner of Trugreen in Kannapolis and Mooresville, agreed to pay \$600 for applying a pesticide in a faulty, careless, or negligent manner because an employee made an application at the wrong residential address in Concord, damaging and killing vegetation.

John Wilcox (IR22-025A), a licensed pesticide dealer for Southern States in Asheville, agreed to pay \$2,400 for selling a soil fumigant restricted-use pesticide to a private pesticide applicator who did not have the required fumigation subcategory on his license.

Keith Waters (IR22-038), a licensed private pesticide applicator in Beaufort County, agreed to pay \$900 because his pesticide application to a soybean field along U.S. Highway 17 south of Chocowinity drifted, damaging trees at the nearby N.C. Department of Transportation rest area. N.C. law states that no person shall apply pesticides under such conditions that drift from pesticide particles or vapors results in adverse effects. Waters also failed to wear a required respirator and failed to obtain a respirator medical clearance prior to making the pesticide application.

Donald E. Norris (IR22-047A), a licensed pesticide dealer for Southern States Cooperative's Lenior Turf Division, agreed to pay \$1,600 for two instances in which an employee sold restricted-use pesticides to individuals with expired pesticide licenses.

Clyde A. McBride (IR22-047B), a licensed commercial pesticide applicator at McCanless Golf Course in Salisbury, agreed to pay \$800 for applying a restricted-use pesticide after his license expired.

Richard A. Duffie (IR22-047C), the superintendent of Catawba Creek Golf Club in Gastonia, agreed to pay \$800 for applying a restricted-use pesticide after his license and certification expired.

Mr. Johnson MOVED that the settlements be accepted, SECONDED by Dr. Savinelli. MOTION CARRIED.

Samuel Walton (IR22-052), a licensed private pesticide applicator in the Lumber Bridge area, agreed to pay \$800 because his pesticide application to a cotton field along N.C. Highway 87 drifted, damaging sweet corn and other garden vegetation at a nearby home. Walton also did not complete the required training prior to applying the restricted-use pesticide.

David N. Atterbury (IR22-050A), licensed pesticide dealer for Green Resource in Winston-Salem, agreed to pay \$1,600 for selling a restricted-use pesticide to someone with an expired license.

Wiley E. Nifong, Jr. (IR22-060B), the owner of Karana Landscapes in Winston-Salem, agreed to pay \$1,200 for engaging in the business of a pesticide applicator and applying restricted-use pesticides after his commercial pesticide applicator license had expired.

Aaron Hairston (IR22-063), of Yard Expressions in Oak Ridge agreed to pay \$1,200 for engaging in the business of a pesticide applicator and applying pesticides after his commercial pesticide applicator license had expired.

Richard J. Jenks, Jr. (IR22-011A), a private pesticide applicator for Po Hous Farm west of Apex, agreed to pay \$800 for applying a restricted-use pesticide without being certified.

Russell Cox (IR22-057), private pesticide applicator for Cox Brothers Farms in the Monroe area, agreed to pay \$1,200 because his pesticide application to a soybean field drifted, damaging trees and other vegetation at a nearby home. N.C. law states that no person shall apply pesticides under such conditions that drift from pesticide particles or vapors results in adverse effects.

Dr. Hudak-Wise MOVED that the settlements be accepted, SECONDED by Dr. Kirkman. MOTION CARRIED.

Ms. Pitt asked the Board if they had any old business or new business to discuss.

Hearing none, Ms. Pitt asked Mr. Jones if he had anything to add.

Mr. Jones advised the Board that EPA has sent out a new updated Bee Advisory, with instruction from Mr. McLennan to include a copy of advisory in the official record. Mr. Jones will email the document to Board members. He also advised the Board that the division will be hosting a Pollinator Pesticide Inspector Regional Training course this year. Also, there is a signed contract with NPSEC to move forward with translation of the Bee Videos the division produced in 2023.

Mr. Jones gave the Board their next meeting date of March 12, 2024. He then introduced Henry Hamilton as the new Pesticide Specialist and Katie Willett as the new Budget/HR Officer.

With no further business, Ms. Pitt asked for a Motion to adjourn the meeting.

Dr. Hudak-Wise MOVED to adjourn the meeting, SECONDED by Dr. Kirkman. MOTION CARRIED.

AGENDA ITEM

#4



STATE ETHICS COMMISSION

POST OFFICE BOX 27685
RALEIGH, NC 27611
PHONE: 919-814-3600

Via Email

June 11, 2024

The Honorable Roy A. Cooper III
Governor of North Carolina
20301 Mail Service Center
Raleigh, North Carolina 27699-0301

**Re: Evaluation of Statement of Economic Interest Filed by Dr. Dianne Farrer
Prospective Appointee to the North Carolina Pesticide Board**

Dear Governor Cooper:

Our office has received **Dr. Dianne Farrer's** 2024 Statement of Economic Interest as a prospective appointee to the **North Carolina Pesticide Board (the "Board")**. We have reviewed it for actual and potential conflicts of interest pursuant to Chapter 138A of the North Carolina General Statutes ("N.C.G.S."), also known as the State Government Ethics Act (the "Act").

Compliance with the Act and avoidance of conflicts of interest in the performance of public duties are the responsibilities of every covered person, regardless of this letter's contents. This letter, meanwhile, is not meant to impugn the integrity of the covered person in any way. This letter is required by N.C.G.S. § 138A-28(a) and is designed to educate the covered person as to potential issues that could merit particular attention. Advice on compliance with the Act is available to certain public servants and legislative employees under N.C.G.S. § 138A-13.

We did not find an actual conflict of interest but found the potential for a conflict of interest. The potential conflict identified does not prohibit service on this entity.

The North Carolina Pesticide Board regulates the use of pesticides in North Carolina. The Board licenses, monitors, and disciplines pesticide dealers and applicators and pest control consultants. In connection with those oversight responsibilities, the Board has the authority to administer examinations, issue, renew, suspend, and revoke licenses, and consider complaints. The Board also establishes regulations relating to the registration, handling, transport, storage, display, and distribution of pesticides, as well as the disposal of pesticides and pesticide containers.

The Act establishes ethical standards for certain public servants and prohibits public servants from: (1) using their positions for their financial benefit or for the benefit of their extended family or business, N.C.G.S. § 138A-31; and (2) participating in official actions from which they or certain associated persons might receive a reasonably foreseeable financial benefit, N.C.G.S. § 138A-36(a). The Act also requires public servants to take appropriate steps to remove themselves from proceedings in which their impartiality might reasonably be questioned due to a familial, personal, or financial relationship with a participant in those proceedings. N.C.G.S. § 138A-36(c).

Dr. Farrer would fill the role of a representative of the North Carolina Department of Agriculture and Consumer Services. Because employees of federal, state, county, or municipal governments who apply pesticides in the course of their jobs, could be certified and licensed by the Board, she has the potential for a conflict of interest. Accordingly, Dr. Farrer should exercise appropriate caution in the performance of her public duties should issues involving state government employees come before the Board for official action.

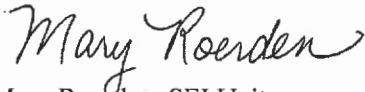
In addition to the conflicts standards noted above, the Act prohibits public servants from accepting gifts from (1) a lobbyist or lobbyist principal, (2) a person or entity that is seeking to do business with the public servant's agency, is regulated or controlled by that agency, or has financial interests that might be affected by their official actions, or (3) anyone in return for being influenced in the discharge of their official responsibilities. N.C.G.S. § 138A-32. Exceptions to the gifts restrictions are set out in N.C.G.S. § 138A-32(e).

When this letter cites an actual or potential conflict of interest under N.C.G.S. § 138A-24(e), the conflict must be recorded in the minutes of the applicable board and brought to the membership's attention by the board's chair as often as necessary to remind all members of the conflict and to help ensure compliance with the Act. N.C.G.S. § 138A-15(c).

Finally, the Act mandates that all public servants attend an ethics and lobbying education presentation. N.C.G.S. § 138A-14. Please review the attached document for additional information concerning this requirement.

Please contact our office if you have any questions concerning our evaluation or the ethical standards governing public servants under the Act.

Sincerely,



Mary Roerden, SEI Unit
State Ethics Commission

cc: Dr. Dianne Farrer
Attachment: Ethics Education Guide

Dianne C. Farrer

Email: dianne.farrer@ncagr.gov
3029 Pearces Rd.
Zebulon, NC 27597

personal cell:252-419-2710
work cell:984-344-4560
office number:919-707-3070

EDUCATION

North Carolina State University, Raleigh NC

Doctorate of Philosophy
Crop Science, Dec. 2005
Minor: Ecology

Dissertation Title: Optimizing nitrogen management for soft red winter wheat yield, grain protein, and grain quality using precision agriculture and remote sensing techniques.

Brigham Young University, Provo UT

Master of Science
Agronomy, Dec. 2001

Thesis Title: Relationship between soil extractable boron and tissue concentrations in Rosaceae shrubs in Utah.

Received Marlow Woodward Scholarship: 1999 and 2000

Brigham Young University, Provo UT

Bachelor of Science
Agronomy and Horticulture, Dec. 1998
Emphasis: Horticulture Science
Received William B. Hebard Scholarship: 1998

WORK & RESEARCH EXPERIENCE

North Carolina Department of Agriculture & Consumer Services: Environmental Programs Specialist, Raleigh NC

Environmental Programs Specialist
Oct. 2024 – Present

- Senate Bill 1217 Interagency Group
- Agricultural Water Use Plan
- Nutrient Strategy Development Stakeholder Group
- Agricultural Waste Technologies Interagency Group
- Beaver Management Assistance Program (BMAP)
- Beneficial Fill (DEQ Solid Waste Rules)
- DEQ Division of Air Quality Liaison
- DEQ Phosphorous Workgroup for Residuals
- DuPont Forest Environmental Liaison
- Environmental Management Commission - Monitor and report on activities / meetings
- EPA Liaison
- Neuse & Tar/Pam Basin, Jordan & Falls Lake Watershed Oversight Committee
- NPDES Aquaculture permit specialist
- High Rock Lake Nutrient Management Planning – Poultry Workgroup
- NC Legislative Committees and Issues Mining and Energy Commission
- NC State Clearinghouse – SEPA
- Technical Review Committee (TRC)
- Flood Blueprint, Nature Base Solutions

Smithfield Grain, Milford UT

Grain Originator
April 2020 – Oct. 2024

- Purchasing grain, corn and wheat, from local growers in Central Utah

- Writing contracts for grain purchased for local feed mill
- Hiring of seasonal temporary employees to work in the scalehouse during harvest seasons, interviewing possible candidates
- Supervising seasonal temporary employees in the scalehouse for harvest season of wheat and corn,
- Training seasonal temporary scalehouse employees on job duties including but not limited to: scalehouse grain sampling mechanical arm, software for data entry of weighed trucks, measuring grain moisture and test weight, positive interactions with farmers delivery and ingredient delivery
- Coordinating grain delivery to mill with mill managers and local growers
- Troubleshooting local growers problems with wheat and corn crops, plus other crops grown locally (alfalfa, safflower, and other crops)
- Promoting Smithfield Grain in the local community by purchasing highschool FFA T-shirts, donating Smithfield products to community and school events
- Speaking at local meetings promoting Smithfield Grain
- Connecting Smithfield Grain with the local community through events, public speaking, and public events
- Establishing white wheat variety field trials in local farmer fields in cooperation with WestBred, Syngenta, LimaSeeds, and local USU Extension agent

Sevier School District, Richfield UT

CTE Instructor

June 2018 – May 2021

- Instructed students from North Sevier High School, Richfield High School, Cedar Ridge High School, and South Sevier High School on various horticulture classes
- Taught Greenhouse Management, Floriculture, Landscape Design, Nursery Operations course to grades 9-12 including special education students
- Managed campus greenhouse operations and interior plantscape maintenance
- Supervised assistant greenhouse manager in daily duties
- Trained assistant greenhouse manager on watering, repotting, and fertilizing greenhouse crops
- Coordinated curriculum with other members of the CTE department
- Created new course curriculum for various classes taught, following USBE state guidelines, using both lectures style teaching and hands on activities in CANVAS software
- Coordinated various field trips to local horticulture industries and invited guest speakers from horticulture industry
- Taught adults after school hour horticulture classes
- Assisted with local FFA chapter meeting, activities and competitions
- Attended many CTE and Agricultural teacher improvement workshops and conferences
- Conducted annual plant sale from student grown horticulture projects, flowers and vegetables to the local community
- Helped with school community events, such as sporting events and academic events (debate), as a judge, ticket taker, serving concessions, or clean up

Solutions 4 Habitats, Cedar Hills UT

Consultant/Educator

Sept. 2014 – 2018

- Teaching classes on plant nutrition and soil fertility at local communities/cities
- Consulting of homeowner's landscapes, troubleshooting plant and soil problems
- Develop, design & maintain blog and social media
- Writing and organizing scientific informational pamphlets about gardening and landscape maintenance
- Writing books for peer review about landscaping, gardening, history of agriculture, soil and plant science
- Speaking at local and regional horticulture meetings on related topics of soil fertility and plant

nutrition

**North Carolina Department of Agriculture & Consumer Services: Agronomic Division,
Raleigh/Greenville NC**

Agronomic Division: Regional Agronomist

Jan. 2007 – Nov. 2012

- Applied considerable knowledge of agronomy, soil fertility, plant nutrition, and nematodes to provide on-site consulting services and troubleshoot plant and soil nutrient and nematode problems to help growers maximize growth and protect the environment
- Promoted the use of the Agronomic divisions soil, plant, water/solution, waste, compost, soilless media, and nematode laboratories and established appropriate agronomic sampling of soil, water/solution, waste, soilless media, nematode, and plant tissue for local growers and industrial institutions
- Troubleshoot problems and offer corrective action solutions by collecting soil, nematode, plant, waste, solution and/or soilless media samples, interpreting laboratory reports, and considering visual observations, nutrient management history and environmental conditions
- Implemented management recommendations in a cost-effective and environmentally sound manner for Eastern North Carolina, including the Coastal Plains and Tidewater Regions
- Educated local growers and industry about waste management, plasticulture practices, wheat tissue sampling, and soil sampling on site or in workshops and small group classes
- Evaluated the division's recommendations by providing feedback in reports or face to face conferences.
- Wrote informational documents for local growers on strawberries, field grown tomatoes, and nematodes
- Assessed agriculture systems after natural disasters (tornados, flooding, hurricanes, drought)
- Served as the agriculture liaison for APNEP Natural Resource Monitoring & Assessment Teams for NC-DENR (North Carolina Department of Environmental and Natural Resources)
- Attended local trade shows, commodity group meetings, grower meetings and fields days as either a participant or educator
- Assessed nitrogen levels in wheat tissue sample taken at GS-26, GS-30, GS-31, strengthening importance of accurate sample time for proper nitrogen recommendations and organized, prepared and presented field research technical reports and other scientific information to a wide audience
- Nursery fertigation study with three common nursery species to see if fertigation was providing adequate nutrition and organized, prepared and presented field research technical reports and other scientific information for the grower/producer
- Assessed optimum lettuce nitrogen rate in an open bed, irrigated production system and organized, prepared and presented field research technical reports and other scientific information for the grower
- Assessed cotton tissue sample time around bloom to make accurate additional fertilizer recommendations and organized, prepared and presented field research technical reports and other scientific information for a wide audience
- Assessed optimum sorghum nitrogen rate over several locations and organized, prepared and presented field research technical reports and other scientific information for a wide audience
- Assessed the effects of root growth and nutrients deposited in a fertigation system, predominately in field grown tomatoes and organized, prepared and presented field research technical reports and other scientific information for a wide audience

Duke University, Durham NC

Research Associate

Feb. 2006 – Jan. 2007

- Curated herbarium specimen from special collection on the La Selva Biological Research Station, Costa Rica
- Troubleshoot misidentified plant specimens and corrected the identification
- Presented organized scientific botanical collection to Missouri Botanical Gardens herbarium staff and Duke herbarium staff
- Data base entry in TROPICOS and SPECIFY the herbarium collection from La Selva, a collaborative project with the Missouri Botanical Gardens
- Maintained effective working relationship between Missouri Botanical Gardens, Duke Herbarium, and La Selva Biological Research Station in Costa Rica

North Carolina State University, Raleigh NC

Research Assistant/Graduate Student

Aug. 2001– Dec. 2005

- Employed real time field mapping using DGPS unit and SiteMate software
- Derived a remotely sensed spectral index for nitrogen management in winter wheat using MapInfo, ArcView 3.2, and ERDAS Imagine software
- Derived an optimum nitrogen rates for winter wheat at jointing growth stage (GS-30)
- Conducted nitrogen management research to increase and stabilize grain protein content of winter wheat and improve grain milling and baking quality of winter wheat
- Researched the effects of different harvest dates on grain yield, grain protein and quality of winter wheat
- Data analysis using SAS 9.1 software
- Research conducted on a field-scale level at NCD/NCSU research stations
- Presented research projects at national and local conferences

Teaching Opportunities:

Laboratories:

CS 051, Forage Production, 1 credit hr

CS 312, Forage Production, 1 credit hr

Guest Lectures:

CS 411, Crop Ecology, 3 credit hr

CS 011, Crop Production, 3 credit hr

CS 012, Cereal Grain Production, 2 credit hr

SSC 200, Soil Science, 4 credit hr

Course Design

CS 070, Agriculture and the Environment

Extension Presentations:

High Tech Farming, local Senior Citizen Center

Brigham Young University, Provo UT

Teaching Assistant/Graduate Student

Aug. 2000 – Aug. 2001

- Conducted plant nutrient experiments in growth chambers using a hydroponics system to monitor boron uptake and translocation in two tomato cultivars
- Conducted boron soil extraction experiments with three different extraction methods
- Conducted soil extraction procedures for soils collected in field work: CEC, Texture, Phosphorus -- Olsen, Nitrogen, Organic Matter, Potassium, pH, EC, Macro and Micro nutrients, Calculated SAR & ESP for soils
- Hired two undergraduate students to help with laboratory work and field work
- Supervised undergraduate students in field work, sample collection of both soils and plant tissue.
- Measured the uptake and yield response in spinach to boron under greenhouse conditions
- Collected soils and native shrubs from the Colorado Plateau and Wasatch Front in Utah for boron concentrations in soils and plant tissues
- Presented research experiments at national and local conferences
- Maintained the inventory of the soil fertility laboratory

Teaching Opportunities:

Courses:

AGHRT 100, Introduction to Horticulture, 3 credit hr

Laboratories:

AGHRT 283, Introduction to Soil Science Lab, 1 credit hr

AGHRT 305, Soil Fertility and Plant Nutrition Lab

AGHRT 520, Saline/Sodic Soils Lab

Guest Lectures:

AGHRT 305, Soil Fertility and Plant Nutrition, 4 credit hr

AGHRT 520, Saline/Sodic Soils, 3 credit hr

Utah Valley University, Orem UT

Botany Laboratory Manager/Assistant Herbarium Curator

July 1997 - Aug. 2000

- Maintained greenhouse and live plant collections
- Troubleshoot soil fertility issues in greenhouse plant collections
- Managed herbarium collections and associated Access database
- Increased the number of herbarium specimen by active collection
- Worked with local and regional USDA Forestry and BLM managers (ag-agencies) on active collection locations
- Assisted in endangered and rare plant research conducted in southern Utah
- Generated funding for the herbarium and greenhouse, through grant writing
- Conducted native plant seed germination experiments by studying soil fertility issues and plants nutrients needed by the natives
- Established a native plant garden on UVU campus, giving recommendations for best arrangement and location based on local environmental conditions and cultural practices
- Assisted with soil and laboratory analysis of wetland soil and water samples at BYU lab (student at BYU at the time)
- Trained students in herbarium curation and field work
- Supervised student help with herbarium and field work
- Assisted in a wetland restoration project on UVU campus by taking soil and water samples for data collection and analysis

Teaching Opportunities:

Laboratories:

BIOL 1020, General Biology Lab, 1 credit hr

BIOL 213L, College Biology Lab, 1 credit hr

BOT 105L, Plant Kingdom

BOT 2050, Field Botany

BOT 2100, Flora of Utah

BOT 3340, Plant Biology

Guest Lectures:

BOT 2050, Field Botany, 3 credit hr

BOT 2100, Flora of Utah, 3 credit hr

Brigham Young University, Provo UT

Grounds Greenhouse Assistant

Nov. 1996 - July 1997

- Consulted on indoor landscape of tropical and temperate houseplants, making recommendations on fertility and optimum environmental condition for the best plant growth
- Applied fertilizer treatments to greenhouse and indoor landscape tropical plants and greenhouse grown bedding plants
- Troubleshoot fertility and environmental issues with indoor landscapes and greenhouse grown bedding plants
- Supervised the cleaning of indoor houseplants, by coordinating with building managers and employees schedules to find the best times and location to dust/clean indoor plantscapes

- Produced greenhouse grown bedding plants and transplanted tropical plant into decorative planters for indoor landscapes
- Selected prime cut flowers for use produced floral arrangements for special events

Lindon Nursery, Lindon UT
Nursery Sales Person
April 1993 - Nov. 1996

- Consulted with local growers and producers of ornamental annual and perennial flower nursery stock and placed orders where customer needs were greatest
- Propagated and repotted perennials and shrubs for sale
- Troubleshoot retail and wholesale clientele on nursery stock need for landscapes
- Compiled a tree-buying guide based on local environment and availability
- Supervised the purchase of annual flowers from wholesale businesses and coordinated the delivery of flowers with fellow workers

PEER REVIEWED PUBLICATIONS

Weisz, R., R.P. Sripada, R. Heiniger, J.G. White, and D.C. Farrer. 2007. In-season tissue testing to optimize soft red winter wheat nitrogen fertilizer rates. *Agron. J.* 99.

Sripada, R., D.C. Farrer, R. Weisz, R. Heiniger and J.G. White. 2007. Aerial color infrared photography to optimize in-season nitrogen fertilizer recommendations in winter wheat. *Agron. J.* 99.

Farrer, D.C., R. Weisz, R. Heiniger, J.P. Murphy, and M.H. Pate. 2006. Delayed harvest affects on soft red winter wheat in the Southeastern USA. *Agron. J.* 98.

Farrer, D.C., R. Weisz, R. Heiniger, J.P. Murphy, and J.G. White. 2006. Minimizing protein variability in soft red winter wheat. *Agron. J.* 98.

Shiffler, A.J., V.D. Jolley, D.C. Farrer, J.E. Christopherson, B.L. Webb, and V.A. Haby. 2005. Pressurized hot water and DTPA-Sorbitol, viable alternatives for soil boron extraction. I. Boron-treated soil incubation and efficiency of extraction. *Comm. Soil Sci. Plant Anal.* 36.

Carter, D. K.T. Harper, A.K. Shiffler, V.D. Jolley, and J.K. Harper. 2003. Relationship between soil extractable boron and tissue concentrations in Rosaceae shrubs in Utah. *J. Plant. Nutr.* 26.

NON REFEREED PUBLICATIONS

Farrer, D.C. 2016. Fall in the Garden. *In Utah Valley Health & Wellness Magazine, Cedar Hills, UT* (invited)

Farrer, D.C. 2016. Gardening: a bit beyond the basics. *In Utah Valley Health & Wellness Magazine, Cedar Hills, UT.* (invited)

Dycus, D., and D.C. Farrer (not credited). 2010. General Fertility Program for Plasticulture Strawberries in Eastern North Carolina. NCD Agronomic Division, Raleigh, NC. (publication no longer available on-line)

Farrer, D.C., 2010. Tomato production fertilization guide. NCD Agronomic Division, Raleigh NC.

Farrer, D.C. and C. Mitchell. Nematode Management. 2010. NCD Agronomic Division, Raleigh, NC (publication no longer available on-line).

Farrer, D.C., R. Weisz, R. Heiniger, and J. Engle. 2005. Late harvest effects on wheat yield, test

weight and grain quality. Small Grains Extension Program, Dep. Crop Sci. NC State Univ. No. 3, Raleigh, NC.

Weisz, R., D.C. Farrer, P. Murphy, R. Heiniger, J. White, and J. Engle. 2005. Increase grain protein stability in North Carolina wheat. Small Grains Extension Program, Dep. Crop Sci. NC State Univ. No. 4, Raleigh, NC.

Shiffler, A.K., V.D. Jolley, B.L. Webb, and D. Carter. 2003. Correlating yield and boron uptake of alfalfa to available boron from three soil boron tests. In (J. Ellsworth, ed.) Western Nutrient Management Conference Proceedings. 5:176-180 (Invited).

Shiffler, A.K., V.D. Jolley, B.L. Webb, and D. Carter. 2003. Variations in extractable boron using three extraction methods on boron-treated incubated soils. In (J. Ellsworth, ed.) Western Nutrient Management Conference Proceedings. 5:181-184 (Invited).

Weisz, R., M. Flowers, D. Carter, R. Heiniger, and J. White. 2003. *Winter Wheat Remote Sensing and Precision N Application: From Outer Space to Common Sense*. 2003 Southern Small Grain Workers Conference. Little Rock, AR. April 27-29.

PUBLISHED ABSTRACTS & PRESENTATIONS

Farrer, D.C. 2018, 2019, 2020, 2021, 2022, 2023, 2024. Soil: the real dirt. The Science & Art of Watering, Slow Fertilizers and Fast Pesticides. The Good, The Bad, and The Ugly: Trees & Shrubs hit list. Classes taught in spring for Central Utah Water Conservation Education. (invited)

Farrer, D.C. 2021. Soils: the real dirt. County Tax Assessor Meeting for all of Utah counties, Ogden UT. (invited)

Farrer, D.C. 2020. Soils: the real dirt. County Tax Assessor Meeting for central Utah counties, Richfield UT. (invited)

Farrer, D.C. 2018. Slower Fertilizers and Fast Pesticides. UNLA Utah Green Conference. Sandy UT. (invited).

Farrer, D.C. 2017. The Science & Art of Watering, Turf/Math: The Pesticide Kind. UNLA Utah Green Conference. Sandy UT. (invited).

Farrer, D.C. 2016. Wetting Agents and Their Use in Turf Management. UNLA Utah Green Conference. Sandy UT. (invited).

Nicholson, D., D.C. Farrer, J. Sanderson, and P. Gabriel. 2012. On farm presentation of NCDA, NCSU Extension, and NRCS, Sorghum Production. Goldsboro, NC.

Yarborough, B., D. Dycus, D.C. Farrer, C. Mitchell, R. Watson, K. Messick. 2011. Introduction to plasticulture. Organized presentation at two local farms, CT Smith Produce, Kinston NC and Killdee Farms, Ramseur, NC.

Farrer, D.C., 2008. Small grains tissue sampling procedures for wheat at GS-30. Invited presentation at Cunningham Research Station, Kinston, NC.

Farrer, D.C. 2005. Optimizing nitrogen management for soft red winter wheat yield, grain protein, and grain quality using precision agriculture and remote sensing techniques. Invited presentation at Brigham Young University.

- Sripada, R., R. Weisz, R. Heiniger, J.G. White, and D.C. Farrer. 2006. Using remote sensing to optimize in-season nitrogen in winter wheat. In 2006 Agronomy abstracts. ASA, Indianapolis, IN.
- Shiffler, A.K., V.D. Jolley, D.C. Farrer, B.L. Webb, and V.A. Haby. 2005. Pressurized hot water and DTPA-Sorbitol as alternatives to hot water for soil boron extraction. Ninth International Symposium on Soil and Plant Analysis, January 30-February 4, 2005, Cancun, Mexico.
- Farrer, D.C., R. Weisz, R. Heiniger, and P. Murphy. 2004. Grain protein variability across years, locations, environments, N rates, and N application timings in winter wheat. 15th Annual Joint Conference of NC Soybean, Corn Growers and Small Grains Association. Jan. 15-16. New Bern, NC. (poster).
- Farrer, D.C., R. Weisz, R. Heiniger, and P. Murphy. 2004. Effects of delayed harvest on yield, test weight, and grain protein of winter wheat. 15th Annual Joint Conference of NC Soybean, Corn Growers and Small Grains Association. Jan. 15-16. New Bern, NC. (poster).
- Farrer, D.C., R. Weisz, R. Heiniger, J.G. White, C.R. Crozier, and D. Crouse. 2004. Using remote sensing techniques for in-season N recommendations in winter wheat. 15th Annual Joint Conference of NC Soybean, Corn Growers and Small Grains Association. Jan. 15-16. New Bern, NC. (poster).
- Unruh-Snyder, L.J., J. Green, and D.C. Farrer. 2004. Interactive Forage and Grassland Laboratory Exercises. Annual Meetings Abstracts [CD-ROM]. ASA, CSSA, and SSSA, Madison, WI
- Farrer, D.C., R. Weisz, P. Murphy, and R. Heiniger. 2004. Nitrogen timing and amounts contributing to protein variability in winter wheat in the Southeast. In 2004 Agronomy abstracts. ASA, Seattle, WA.
- Farrer, D.C., R. Weisz, J.G. White, and R. Heiniger. 2004. False color photographs used to determine optimum N rates in winter wheat. In 2004 Agronomy abstracts. ASA, Seattle, WA.
- Hong, N., J.G. White, M. Gumpertz, R. Weisz, R.P. Sripada, and D.C. Farrer. 2004. Assessing comparability of uniform and variable rate application: A site-specific management study. 6th International conference on Precision Agriculture and other precision resources management. Precision Agriculture Center, Minneapolis, Minnesota. USA.
- Unruh-Snyder, L.J., J. Green, and D.C. Farrer. 2004. Interactive Forage and Grassland Laboratory Exercises. In 2004 Agronomy abstracts. ASA, Seattle, WA.
- Weisz, R., D.C. Farrer, and R. Heiniger. 2004. Winter wheat grain quality as affected by delayed harvest. In 2004 Agronomy abstracts. ASA, Seattle, WA.
- Farrer, D.C., R. Weisz, R. Heiniger, and P. Murphy. 2003. Improving soft red winter wheat grain protein and milling and baking quality by managing nitrogen rates, timing and harvest date. In 2003 Agronomy abstracts. ASA, Denver, CO.
- Farrer, D.C., R. Weisz, R. Heiniger, and J.G. White. 2003. Optimizing in-season nitrogen recommendations in winter wheat using aerial photography. In 2003 Agronomy abstracts. ASA, Denver, CO.
- Shiffler, A.K., V.D. Jolley, B.L. Webb, and D. Carter. 2003. Correlating yield and boron uptake of alfalfa to available boron from three soil boron tests. March 8-9, 2003, Western Nutrient Management Conference, Salt Lake City, UT.
- Shiffler, A.K., V.D. Jolley, B.L. Webb, and D. Carter. 2003. Variations in extractable boron using three extraction methods on boron-treated incubated soils. March 8-9, 2003, Western Nutrient Management Conference, Salt Lake City, UT.

Weisz, R., M. D. Flowers, D. Carter, R. Heiniger, and J.G. White. 2003. Winter wheat remote sensing and precision N application: From outer space to common sense. The Southern Small Grain Workers Conference, April 27th - 29th, Little Rock, AR. (invited presentation).

Carter, D., R. Weisz, and R. Heiniger. 2003. Late nitrogen application to improve wheat grain protein and quality. 14th Annual Joint Conference of NC Soybean, Corn Growers and Small Grains Association. Jan. 16-17. New Bern, NC. (poster)

Carter, D., R. Weisz, and R. Heiniger. 2003. Managing grain protein and quality of soft red winter wheat with spring nitrogen applications. 14th Annual Joint Conference of NC Soybean, Corn Growers and Small Grains Association. Jan. 16-17. New Bern, NC. (poster)

Carter, D., R. Weisz, J. G. White, and R. Heiniger. 2002. Remote sensing and nitrogen optimization for site specific management of soft red winter wheat. *In* 2002 Agronomy abstracts. ASA, Indianapolis, IN.

Harper, K.T., D. Carter, A.K. Shiffler, V.D. Jolley, and J. K. Harper. 2002 The relationship between soil extractable boron and tissue concentrations in Rosaceae shrubs in Utah. *In* 2002 Agronomy abstracts. ASA, Indianapolis, IN.

Heiniger, R., D. Carter, and R. Weisz. 2002. Impact of spring nitrogen fertilizer timing on soft red winter wheat grain protein. *In* 2002 Agronomy abstracts. ASA, Indianapolis, IN.

Shiffler, A.K., V. D. Jolley, B. L. Webb, and D. Carter. 2002. Correlating yield and boron uptake of alfalfa to available soil boron using three soil tests. *In* 2002 Agronomy abstracts. ASA, Indianapolis, IN.

Webb, B., D. Carter, A. K. Shiffler, and V. D. Jolley. 2002. Variations in extractable boron using three extraction methods on sandy and silt loam soils treated and incubated with 10 levels of boron. *In* 2002 Agronomy abstracts. ASA, Indianapolis, IN.

Carter, D. K.T. Harper, and V.D. Jolley. 2000. Ecological survey of boron concentrations in native plants in Utah. p. 284. *In* 2000 Agronomy abstracts. ASA, Minneapolis, MN.

PROFESSIONAL ASSOCIATIONS & CERTIFICATIONS

Public Pesticide Operator License, North Carolina Department of Agriculture and Consumer Services, Dec. 2010 – Dec. 2012

Emergency Management Institute IS-00200 (ICS for Single Resources and Initial Action Incidents), FEMA, July 2007

Emergency Management Institute IS-00100 (ICS 100), FEMA, June 2007

Certificate of Completion for Phosphorus Loss Assessment Tool, NC State University – Soil Science Dept. & USDA-NRCS, May 2007

Certificate of Completion for Revised Universal Soil Loss Equation (Ver 1.04), NC State University – Soil Science Dept. & USDA-NRCS, May 2007

Certificate of Completion for 3-Day Nutrient Management Training, NC State University – Soil Science Dept. & USDA-NRCS, May 2007

Certificate of Completion for NC Nutrient Management Software, NC Division of Soil and Water Conservation, Oct. 2007

Public Pesticide Operator License, Utah Department of Agriculture and Food, Jan. 1998 – Jan. 2001

American Society of Agronomy, 1998 - 2005

Soil Science Society of America, 1998 - 2005

Crop Science Society of America, 2000 - 2005

American Association of Botanical Gardens and Arboreta, 1999 -2001

RESEARCH GRANTS FUNDED & AWARDS GIVEN

Employee of the Month, North Carolina Department of Agriculture and Consumer Services, June 2012

Skills for Tobacco Grower: Succeed IV, The North Carolina Tobacco Foundation, Feb. 2012

Utah Valley State College Exceptional Merit Grant

Utah Valley State College Herbarium, Orem, Utah

Awarded \$2000 in March 2000

Awarded to collect plant specimens to increase diversity and number for the Utah Valley State College Herbarium. Also used to purchase herbarium equipment and supplies.

COMMUNITY SERVICE

United States Forest Service Volunteer (May 1991 - Sept. 1991), Pleasant Grove, UT
Missionary for The Church of Jesus Christ of Latter Day Saints (Sept. 1994 – April 1996), Detroit, MI
Project Read Volunteer, Literacy Program (Jan. 1997- Aug. 1999) Provo, UT
Horticulture Therapy Classes at Provo Senior Citizen Center (Jan. 2000 – May 2001), Provo, UT
Container and Herb Gardening to local women's church group (periodically from 1997-present)
North Carolina Association of Educators volunteer (Nov. 2005 – Dec. 2005), Raleigh, NC
Martin Luther King Jr., Dreamfest Taskforce volunteer (Jan. 2005 & Jan 2006), Cary, NC
Duke Herbarium volunteer (April 2005 – Jan. 2006), Durham, NC
Cameron Village Public Library volunteer (Feb. 2006 – 2007), Raleigh, NC
Deerfield Elementary, Take Home Reading Program (Oct. 2013 – Aug. 2015), Cedar Hills, UT
Pahvant Elementary, Parent Volunteer – Individual Reading (2021-2022), Richfield UT
Bureau of Land Management, Volunteer – Rare & Endangered plant research and disturbance monitoring (April 2019 - October 2023), Richfield UT

REFERENCES

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