

Name: Andrew Wayne MacRae

Rank: Post Doctoral Associate

% Salary Budgeted: Instr. Res. 100 Ext. Outreach

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available

Program Overview: Post-Doctoral Research Associate under the direction of Stanley Culpepper. Conduct weed biology and control studies in cotton, small grain, and vegetables. Primary research is evaluating and developing alternatives to methyl bromide for use in plasticulture vegetable production and the biology and control of glyphosate-resistant Palmer amaranth in Roundup Ready and Flex cotton production systems.

Education:

Institution	Years	Degree-Major	
North Carolina State Univ.	2002-2005	PhD	Horticultural Science-Weed Science
North Carolina State Univ.	1998-2001	M.S.	Horticultural Science-Weed Science
Nova Scotia Agric. College	1993-1997	B.S.	Agriculture-Pest Management

Employment

Years	Position-description of duties
2005-Present	University of Georgia. Post Doctoral Associate-responsibilities include the planning, conduct, data collection, analysis, presentation and publication of vegetable, cotton, and small grain weed management trials.
1998-2005	North Carolina State University. Graduate Research Assistant-responsibilities include the planning, conduct, data collection, analysis, presentation and publication of small fruit, tree fruit, and vegetable weed management trials. Conduct IR-4 pesticide residue trials as per 'Good Laboratory Practice' procedures. Conducted IR-4 research with GLP procedures on 178 trials, 124 projects, 63 test substances, and 31 crops.
1997-1998	Nova Scotia Department of Agriculture and Marketing. Interim Weed Science Technician-responsibilities included planning, conducting, data collection, analysis, presentation and publication of weed management trials for all crops grown within the province.

Membership in Professional Societies

- Weed Science Society of America
- Southern Weed Science Society
- Gamma Sigma Delta
- Pi Alpha Xi
- Georgia Association of County Agricultural Agents

Awards

- 2005 Georgia Association of County Agricultural Agents**
 - second in the state staff poster presentation contest
- 2005 IR-4 Southern Region**
 - presented with the IR-4 Technical Service award
- 2003 Weed Science Society of North Carolina**
 - presented with the outstanding PhD student award

2003 Northeast Weed Science Society Contest

- member of the first place graduate team
- first overall individual
- first in individual sprayer calibration
- first in farmer problems

2003 North Carolina Crop Protection School

- second in the graduate student paper presentation contest

2002 Northeast Weed Science Society Contest

- member of the first place graduate team
- fifth overall individual
- first in individual sprayer calibration
- second in weed ID
- second in farmer problems

2001 Northeast Weed Science Society Contest

- member of the first place graduate team
- sixth overall individual
- first in individual sprayer calibration

2001 Southern Weed Science Society Annual Meeting

- first in the graduate student paper presentation contest

Contributions to Teaching

- (1) Undergraduate
- | Course # | Title | Times taught (Sp & Fall) | Avg. # of Students |
|----------|-------|--------------------------|--------------------|
|----------|-------|--------------------------|--------------------|
- (2) Graduate
- | Course # | Title | Times taught (Sp & Fall) | Avg. # of Students |
|----------|-------|--------------------------|--------------------|
|----------|-------|--------------------------|--------------------|
- (3) Service on Graduate Advisory Committees
- | Degree (MS/Ph.D) | Involvement (member/chair) |
|------------------|----------------------------|
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Contributions to Research and Other Creative Activities

No. of books

No. of book chapters

No. of refereed papers/by journal – 4 / Weed Technology

No. of proceedings papers

No. of abstracts - 15

No. of Patents/PVPs

Other activities - 2006 Pest Management Handbook (small grains and vegetable weed control)

- 5 Research Reports for North Carolina State University

Contributions to Extension

2006

- Southeastern Regional Fruit and Vegetable Conference, Savannah, GA – Weed management systems in snap beans and watermelons.
- Weed Seedling Identification, Georgia County Extension Meetings – Ben Hill, Decatur, Grady, Macon, Seminole, Turner, and Wilcox counties.

2005

- Georgia Association of County Agricultural Agents (Poster) – Tropical spiderwort management in cotton.

2004

- North Carolina Weed Science Society – Sweetpotato tolerance to pre-transplant and post-transplant applications of Sandea.
- Wilson County Sweetpotato Growers Meeting – *Palmer amaranth* management in sweetpotatoes.
- North Carolina Sweetpotato Commission Annual Meeting – Sweetpotato tolerance to Envoke and Valor, IR-4 representative.
- Sweetpotato Field Day – Sweetpotato tolerance to Valor, yellow and purple nutsedge control with Sandea and Eptam, new herbicide registrations, general weed control information, IR-4 representative.
- North Carolina Fruit and Vegetables Growers Annual Meeting – The war on pigweed.

2003

- North Carolina Crop Protection School – Managing weeds in sweetpotato using selected herbicides, *Palmer amaranth* interference in sweetpotato.
- North Carolina State University Department of Horticultural Science Seminar Series – Weed management in sweetpotatoes.

2002

- North Carolina Weed Science Society – Effect of weed-free intervals on Peach (*Prunus persica*) tree growth, yield, and fruit quality.
- North Carolina/South Carolina Pecan Growers Field Day – Weed management in pecan orchards.

2001

- Gaffney, South Carolina Peach Growers Conference – Peach tree response to halosulfuron and sulfentrazone.
- North Florida/South Georgia Peach Growers Meeting – Calibration of airblast sprayers.
- Master Pomologist Class – Weed Management in Apple Orchards
- North Carolina/South Carolina Pecan Growers Field Day – Weed management in pecan orchards

Sources of Grants/amounts

Southern Regional Canola Research Program - 7-05 to 7-06 - \$15,000

USDA – Cooperative State Research, Education, and Extension Service – 10-06 to 10-09 - \$526,245

Contributions to Professional Service (committee service to department, college, university, and/or professional societies)

Goals for the Next Five Years

- Work with growers to develop effective uses of methyl bromide alternatives with on-farm large scale field plots.
- Determine the competitive ability of glyphosate-resistant *Palmer amaranth*.
- Develop management strategies for glyphosate-resistant *Palmer amaranth* in Roundup Ready, Flex and Liberty Link cotton production systems.