

DR. AYANAVA MAJUMDAR

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EXPERTISE AREAS: Integrated pest management in peanuts and vegetable crops; manage the beginning farmer training program; organic pest management, biopesticide screening and development

MAJOR EXTENSION RESOURCES

Peanut IPM Website: www.aces.edu/peanutipm
Vegetable IPM Website: www.aces.edu/vegetableipm
Alabama Beginning Farms Project: www.aces.edu/beginningfarms
IPM Communicator E-Newsletter: www.aces.edu/go/ipmcommunicator
Program Evaluation Toolkit: <http://www.aces.edu/anr/ipm/EvalToolkit/>
Alabama SARE Program: <http://www.southernsare.org/SARE-in-Your-State/Alabama>

ACADEMIC HISTORY

- Ph.D. Entomology. 2001-2006. Entomology Department, North Dakota State University, Fargo, ND.
- M.S. Agric. Entomology (with Distinction). 1998-2001. Dr. P.D. Agricultural University, Maharashtra, India.
- B.S. in Agriculture and Animal Husbandry (with Honors). 1993-1997. G.B. Pant University of Agriculture and Technology, Uttaranchal, India.

CAREER HISTORY

- Non-tenure Faculty, AU Department of Entomology and Plant Pathology (2017)
- Adjunct Faculty, AU Department of Entomology and Plant Pathology (2012-2016)
- **Extension Entomologist, Alabama Cooperative Extension System, Auburn University, Auburn (2008-present)**
- County Extension Coordinator & Ag Educator - Cropping Systems, NDSU Extension (2007-2008)
- Postdoctoral Associate, North Dakota State University, Fargo (2006-2007)
- Graduate Research Assistant, NDSU Entomology, Fargo (2001-2006)
- Product Development Executive, Novartis India Limited – Crop Protection, India (1999-2001)
- Student technician, Monsanto (India), Akola (Nov 1998 to Feb 1999)

RESEARCH AND EXTENSION FUNDING (2008-current)

- Collaborative grants as primary author or coauthor: **\$5,993,804** (IPM program funds **\$708,995**)
- Single institution competitive grants: **\$195,122** (100% IPM program funds as primary author)
- Industry research fund: **\$87,600** (100% IPM program funds)
- Extension revenue generation (annual producer conference + program fee): **\$155,255**

PIONEERING IPM TECHNOLOGIES FOR PRODUCERS

- Trap cropping in tomato and squash production
- High tunnel pest exclusion system
- Use of innovative information delivery systems: iBook, electronic curriculum, phone app, websites

RESEARCH AND TEACHING OUTPUTS (2008-current)

- Career totals: **16** refereed papers; **29** published abstracts; **9** research and extension posters; **5** IPM symposia; **16** technical articles for commodity groups, **50+** reports (as senior author) for USDA NIFA, SARE, OREI, and Specialty Crops grants.
- Classroom lectures in AU Entomology and Plant Pathology Department: **7 (174+ students)**
- International agriculture development projects: **7** international presentations; Trained producers and consultants from the Albania (2016); Republic of Georgia (2014); India (2015, 2016); Srilanka (2015); USDA FAS Cochran Fellowship (2012); York Scholarship to India for collaboration (2010)

EXTENSION IPM PROGRAM OUTPUTS (2008-current)

Educational field activity	Total numbers	Details/Unduplicated numbers
IPM Field Demonstrations	70	On-farm and 8 AU research stations
Extension webinars	11	Peanut IPM: 2, Vegetable IPM: 9
Team webinars coordinated	20	Webinar views: 1,500+
Peanut IPM 45-min presentations	72	Total participants: 2,706*
Vegetable IPM 45-min presentations	149	Total participants: 5,630* (tracks: conventional, organic, beginning farmers)
Peanut IPM 2-hour workshops with hands-on training	3	Total participants: 180*
Vegetable IPM 2-hour workshops with hands-on training	62	Total participants: 2,456*
Peanut IPM Scout Schools (Field)	21	Total participants: 1,449*
Vegetable IPM Scout Schools (Field)	38	Total participants: 1,126*
Professional development IPM training for educators on three ACES teams	34	Total participants: 807*
IPM Exhibitions	45	Direct participants: 3,893*; Indirect participants: 25,422
Youth training programs	12	Direct participants: 498
<i>Total</i>	<i>537</i>	<i>*Total direct contacts: 18,247</i>

Publication Type/Title	Total numbers	Circulation/Remarks
Traditional print		
Crop Production Handbooks	2	8,500 in print*; 350+ digital downloads
IPM Field Guides (Annually Updated)	12	26,500*
IPM Newsletter Articles	94	Alabama IPM Communicator has 2,514 subscribers; 17 issues per year since 2010
IPM Bulletins/Factsheets	24	2 translated into Spanish and French
ACES News Releases & Podcasts	48	News related to increase IPM adoption
Evaluation Bulletins	6	
Project Promotional Items	34	52,400 bookmarks, pushcards, banners, pens and pencils*
Farm Magazine Articles	87	58 vegetable IPM and 29 peanut IPM articles
Newspaper articles	34	
<i>Total</i>	<i>341</i>	<i>Total printed media: 87,400</i>

<i>Digital Media</i>		
Beginning Farmer Phone Application	1	Under development – to be released in Dec 2017
Farming Basics E-curriculum	1	Under development (150+ pre-registered) – to be released in Dec 2017
IPM Websites	5	Listed at the beginning of resume
IPM Communicator e-newsletter	1	2,514 subscribers; 17 issues per year; 3,000 vies
IPM Social Media Channels	3	1,626 followers
IPM Training Modules	9	
TV Programs (Simply Southern)	6	2,000 views on YouTube
IPM Training Videos	23	6,000 views on ACES Fresh from the Field
Evaluation (Impact) Videos	8	3,000 views on ACES Fresh from the Field
<i>Total</i>	<i>57</i>	<i>Video views: 11,000</i>

PROGRAM AWARDS AND RECOGNITIONS

- Epsilon Sigma Phi/Alpha Pi Chapter: Early Career Award for Extension Programming (2017)
- Southern Region IPM Center ‘Friends of IPM’: IPM Educator of the Year Award (2017); Pulling Together Team Leadership Award (2013); Future Leader Award (2012)
- American Society of Horticulture Science: Blue Ribbon Communications Award (2015)
- National Association of County Agricultural Agents (NACAA): National Award for Sustainable Agriculture Program (2014); Early Career Achievement Award (2012)

MAJOR AWARD-WINNING EXTENSION PUBLICATIONS

- High Tunnel Crop Production: Training Module for New and Beginning Farmers. ANR-2157. Circulation: 2,500 copies; iBook downloads: 300. *NACAA Bound Book National Finalist (2015)*.
- Alternative Vegetable IPM Recommendation Slide Chart. ANR-2190. Circulation: 12,000 copies. *Blue Ribbon Communication Award, Southern Region American Society of Horticultural Sciences (2015)*.
- Southeastern U.S. Vegetable Crop Handbook (G.J. Holmes and J.M. Kemble, eds.). ANR-1344. Circulation: 6,000 per year. *Blue Ribbon Communication Award, Southern Region American Society of Horticultural Sciences (2012)*.
- Alabama IPM Communicator newsletter with 2,500+ subscribers. *NACAA Southeastern Region Communication, Team Newsletter Award (2011) and Southern Region IPM Center ‘Friends of IPM’ – Pulling Together Award (2013)*

PROJECT EVALUATION EXPERIENCE (2008-current)

- Evaluation practitioner (16 CEUs/year) focused on capacity building and utilization of results.
- Developed **5** evaluation bulletins and articles; developed **12** success stories and facilitated **15** other; **16 in-service evaluation trainings** completed for 3 ACES Teams.
- Principal advisor for AFVGA, ASAN, and SSAWG Annual Conferences (producer organizations).
- Project impact videos available at <http://www.aces.edu/anr/ipm/EvalToolkit/>. Alabama Organic Extension and Research IPM program was ranked #16 in the nation (OFRF Report) due to strong educational campaign. Top SARE programs nationally based on USDA Biennial Reports ([2015-2016](#), [2013-2014](#)).

ADMINISTRATIVE AND LEADERSHIP EXPERIENCE (2008-current)

- AU College of Agriculture Strategic Committee (2016)
- ACES Civil Rights Strategic Team (2016-2017)
- ACES Drought Response Teams (2016)
- Blue Ridge Conference on Leadership (2015)
- Commercial Horticulture Team Leader (2012-present): Coordinate **25** Team members; **14** statewide projects. Developed over 8 professional development grants with funds exceeding **\$70,000**.
- Member, ACES Budget Committee (2012)

PROFESSIONAL MEMBERSHIPS

- Entomological Society of America (ESA, 2002-current)
- American Society of Horticultural Sciences (2011-current)
- American Evaluation Association (AEA, 2009-current) – AEA365 Blog Curator in 2010
- National Association of County Agricultural Agents (NACAA, 2007-current)

EXPERT REVIEWER

- Alabama Produce Taskforce (appointed by Agric. Commissioner)
- USDA Grant Panels: SARE program, Small Business Development Program, IR-4 National Panel
- Citrus Research Development Foundation (2013)
- Journals: HortScience, Entomologia Experimentalis et Applicata, Florida Entomologist, Environmental Entomologist, Journal of the NACAA

EXTENSION PROGRAM IMPACTS (ABBREVIATED VERSION)

- Program Diversity: Organic/small farm IPM project reaches 70 percent white, 20 percent black, and 10 percent Hispanic and American Indian communities statewide.
- Vegetable producers save 50 percent or more crop by using IPM recommendations. In drought years, direct crop loss can be 70 percent from overlapping generations of pests. Annual direct impact of producer training and consultation service is \$5 million. Indirect impact of training programs is \$4 million. Beginning Farmer project is directly assisting 40 fruit and vegetable producers statewide (14 veteran-owned farms). Return on Investment (ROI) from grant-funded projects is **\$107 for every dollar** invested in IPM educational program.
- Peanut IPM program makes a direct impact of about \$25 million with 90 percent adoption rate for insect pest scouting by producers and crop consultants. New IPM recommendations for caterpillar control have reduced spider mite (secondary) outbreaks by 50 percent and improved natural enemy conservation. Ninety percent satisfaction rating from producers after training. Return on Investment (ROI) from grant-funded projects is **\$100 for every dollar** invested in this IPM educational program.

RECENT EXAMPLES OF JOURNAL PUBLICATIONS

1. Balusu, R., E. Rhodes, **A. Majumdar**, R. D. Cave, O. Liburd, and H. Fadamiro. 2017. Biology, ecology, and management of yellowmargined leaf beetle (Coleoptera: Chrysomelidae) in organic crucifer production. *Journal of Integrated Pest Management*. Submitted to the *Journal of Integrated Pest Management*, January 2017. *In press*.
2. **Majumdar, A.**, and J. Pitts. 2017. Yellowmargined leaf beetle control with organic insecticides in turnips. *Arthropod Management Tests*, 42 (1): tx038. [Online] <https://doi.org/10.1093/amt/tx038>
3. **Majumdar, A.**, and A. Chambliss. 2016. Effect of high tunnel pest exclusion system on two natural enemies. *Journal of the NACAA*. [Online] http://www.nacaa.com/journal/post_editor.php?article_id=607