

National Workshop on the Future of Education in
Plant Pathology and Related Disciplines

*Agronomy 101: Learning in
the Second Century of ASA*

Ken Moore
Past President
American Society of Agronomy

Washington DC • March 19-20, 2009

What is Agronomy?

Science of land management that integrates crop, soil and environmental sciences for the purposes of producing food, feed, fiber, fuels and environmental services for the benefit of humankind.

Agronomy is unique in that it is both a **science** and a **profession**... ASA promotes both the **science** and **practice** of agronomy.

ASA Task Force

Education – *Mary Savin, Chair.*

Goal - to discuss and evaluate the future of ASA educational programs.

Final report September 3, 2007.

Recommendations

- Focus on practicing professionals and CCAs.
- Interact with other disciplines, technologies, societies, groups.
- Technical training/workshops.

Outcomes

- Technical training webinars.
- Basics in Applied Agronomy short course.

Trends in Agronomic Education

Undergraduate Degree Programs

- BS enrollments declining in traditional programs.
- Fragmentation of degree options.
- Career opportunities strong and anticipated to grow.

Opportunities:

- Certification and licensure.
- Academic program accreditation.
- National curricula in agronomy and related fields.
- Two-year technical programs – community colleges.
- Alternative degree tracks – 3 + 2 BS/MS.

IOWA STATE UNIVERSITY

**i'm an
agronomist**
applying science to fuel and feed our global society

what is agronomy?

meet
agronomists

learn the
issues

are you an agronomist? click to find out!



extras

ready? become
an agronomist



i'm an
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what is agronomy?

close X

issues



Leslie Freehill



1. Where are you from?

Chenoa, IL

2. What are some of the main issues for society that you are concerned about?

I am concerned about the increasing stress on agriculture and the environment from our booming world population and demand for food and energy.

3. Why did you choose Iowa State University?

Iowa State is well-known for its excellent agriculture programs, and the Agronomy Department helped me with everything I needed to make the transition from community college.

4. What was your first year here like?



Trends in Agronomic Education

Graduate Degree Programs

- MS and PhD enrollments declining in traditional research programs.
- Career opportunities vary with specialization.
- Flat or modest growth overall.

Opportunities:

- Collaborative graduate training programs.
- Professional degree programs.
 - Career opportunities strong and anticipated to grow.
- Distance education – Online professional degrees.



master of science
agronomy
IOWA STATE UNIVERSITY

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STUDENT INFO

- [Access Courses](#)
- [Calendar](#)

- Admission Requirements
- Application
- Student-ID, Net-ID, E-Mail
- Student Information
- Steps to Graduation
- Typical Plan of Study
- Policy

- Curriculum
- Course Registration
- On-Campus Orientation
- Creative Component
- Cost / Funding
- Graduation

- Technology Requirements
- CEU's for MS Courses
- Links

- Agronomy Podcasts

PROGRAM INFO

Overview [New visitor? Start here](#)

- Goals
- Personnel
- Demographics
- History
- Awards
- Cost

EXTRAS

- Brochure
- Sample Lesson
- Tour
- 10 Year Video
- 10 Year Brochure
- Wallpapers
- NEW** Fall '08 Dept Mtg

PROGRAM NEWS [MORE...](#)



Register For Summer and Fall Courses

Registration for Summer and Fall semester courses begins on March 23, 2009. Students can...

[MORE...](#)

Virgil K. Webster Scholarship

The Virgil K. Webster Graduate Scholarship is intended for those students in the M.S. in...

[MORE...](#)

M.S. in Agronomy Program Orientation

New and current students are invited to attend the 2009-2010 M.S. in Agronomy Program...

[MORE...](#)

PROGRAM PROFILE



Dr. Kendall Lamkey

Dr. Lamkey is the Chair, Department of Agronomy, Pioneer Distinguished Chair in Maize Breeding and Director of the Raymond F. Baker Center for Plant Breeding...

[MORE...](#)

ALUMNI CORNER

- Alumni Newsletter Fall 2008

[MORE...](#)



Master of Science in Agronomy

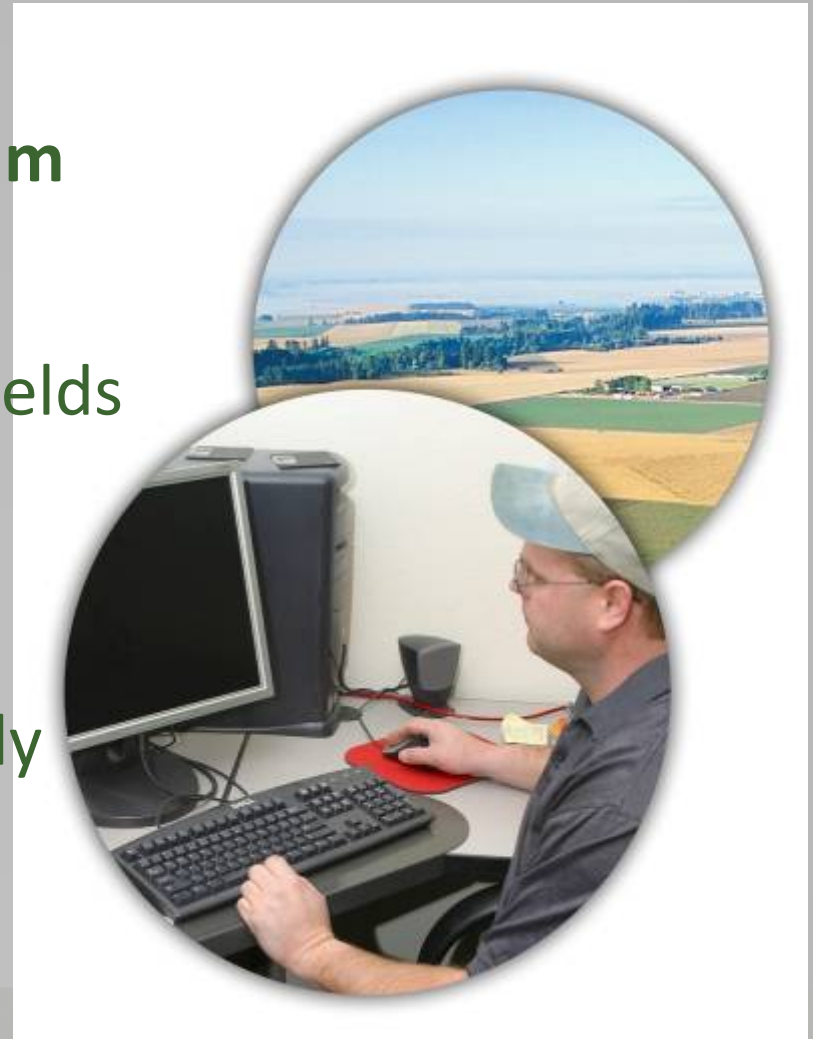
Program Description

Professional degree program

- Working professionals
- Agronomy and related fields

Offered only at distance

- Delivered asynchronously
- CD-ROM
- Internet



Master of Science in Agronomy Curriculum

Traditional M.S.

Agronomy

Crop Production & Physiology

Weed Science

Research & Thesis

Ph.D. Program

Distance M.S.

Agronomy

Crops

Soils












IPM

Climatology

Creative Component

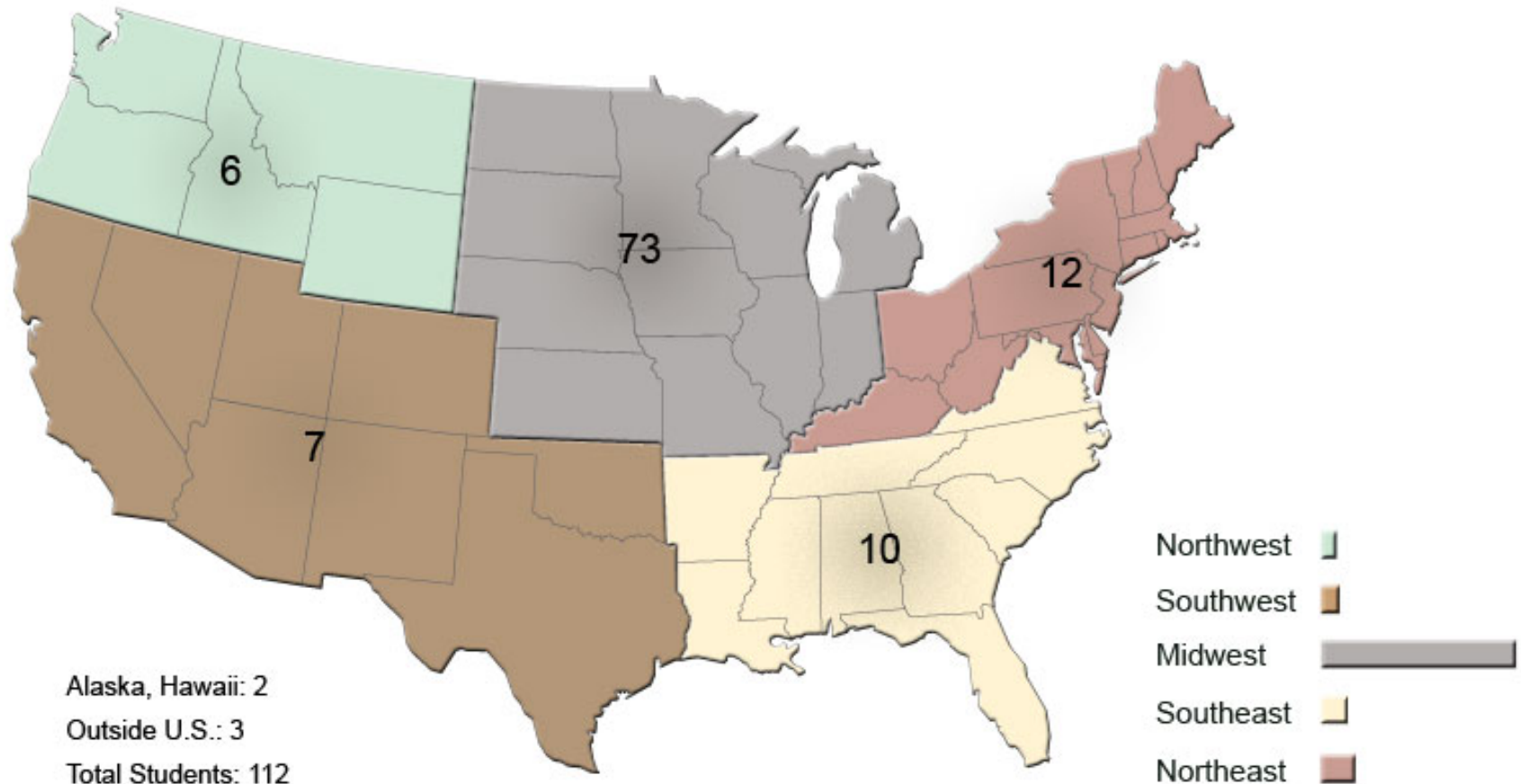
Demographics

Admissions per Year

Year		Admitted
1998		15
1999		21
2000		35
2001		17
2002		26
2003		34
2004		18
2005		27
2006		25
2007		31
2008		33
Total Admitted		279

Demographics

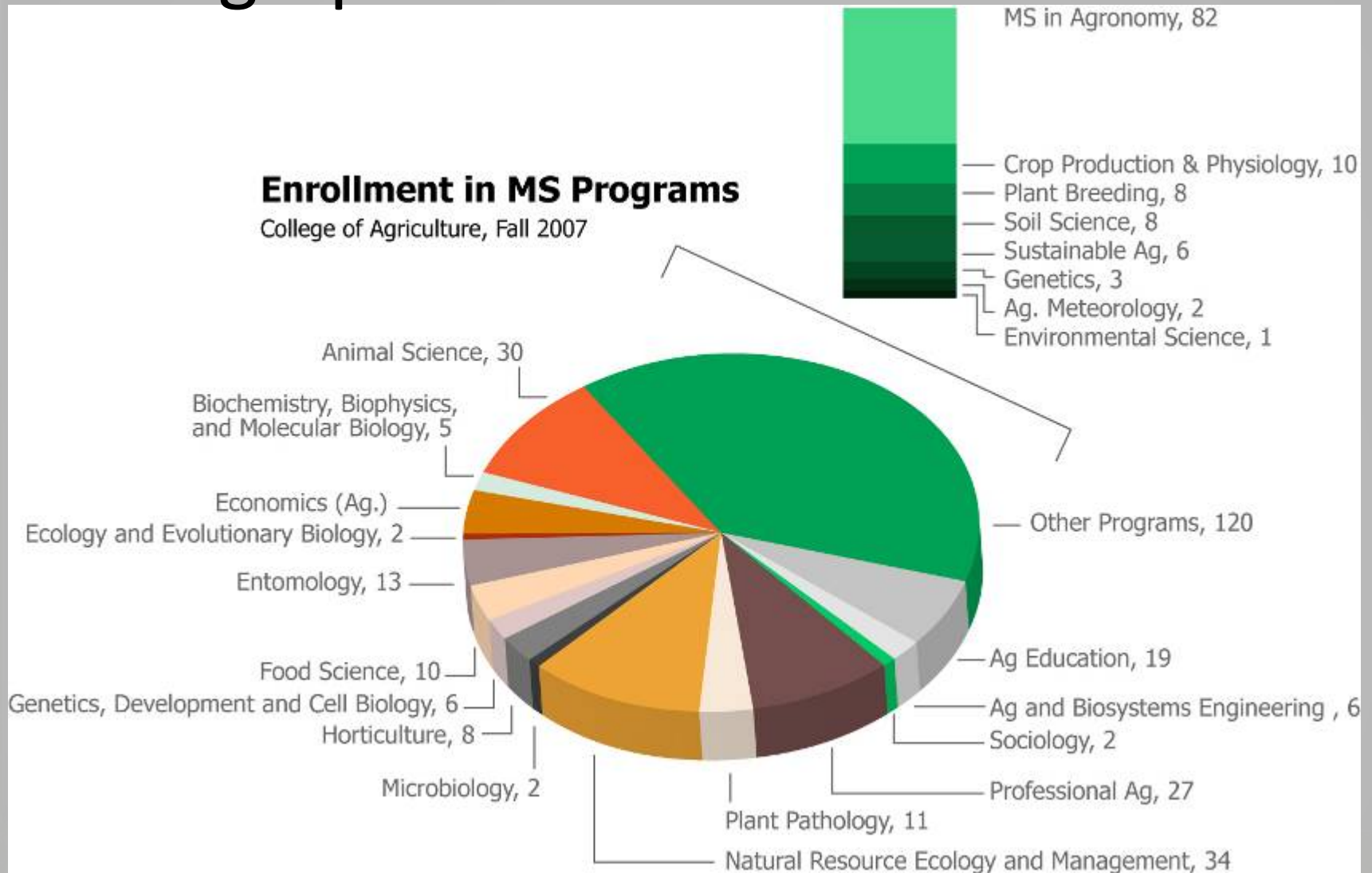
Distribution of Students



Demographics

Enrollment in MS Programs

College of Agriculture, Fall 2007



Trends in Agronomic Education

Continuing Education

- Certification Programs
 - Certified Crop Adviser (CCA) – > 13,000
 - Certified Professional Agronomist (CPAg)
– > 650
- Continuing education requirement.

Opportunities:

- Continuing Education Units (CEUs).
- Certificate Programs - Specializations


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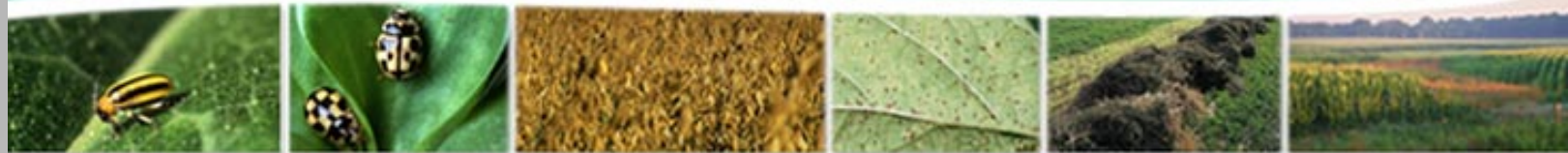
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The mission of the Crop Adviser Institute is to provide high quality, interactive, computer-based, learning modules designed for the continuing education of agricultural professionals. This mission is being fulfilled through an Iowa State University partnership between the Iowa State University College of Agriculture and Iowa State University Extension.



Welcome

<http://www.cai.iastate.edu/index.aspx>

Agribusiness Education Program

Programs

- Ag Chemical Dealer Updates
- CCA Exam Prep Class
- Crop Advantage Series
- Crop Diagnostic Notebook
- Crop Scout School
- Field Extension Education Laboratory
- Integrated Crop Management Conf.
- Iowa Drainage School
- Iowa Water Conference

Winter Crop Schools

- Calendar
- Newsroom

Departments

- Agronomy
- Entomology
- Plant Pathology
- Ag & Biosystems Engineering



All things water...

The [Iowa Water Conference](#), Mar 9-10, features a variety of workshops dealing with watershed management from the agriculture and urban perspectives.

Your partner in continuing education and professional development

The Iowa State University Agribusiness Education Program (AEP) provides a year-round schedule of educational opportunities. In addition to our regularly-scheduled programs we are available to assist in developing customized events for your organization.

Upcoming events

- Mar 7 [Crop Scout School](#)
- Mar 9-10 [Iowa Water Conference](#)
- Dec 2-3 [Integrated Crop Management Conference](#)

For a listing of all ISU Extension events please visit the [Extension online calendar](#).

You've got mail!

Receive early notification of conferences, courses and credits. [Sign up to receive e-brochures delivered right to your inbox.](#)



News & Updates

The 2009 Crop Scout School has reached capacity and registrations are no longer being accepted.

[Iowa Water Conference features combined meetings, more topics](#)

The 2009 Iowa Water Conference will feature the combined Iowa Storm Water Conference and the Iowa Agriculture and Environment Conference. Join us as we explore The Agricultural and Urban Link to Watershed Improvement, March 9-10. [Registration is now open.](#)

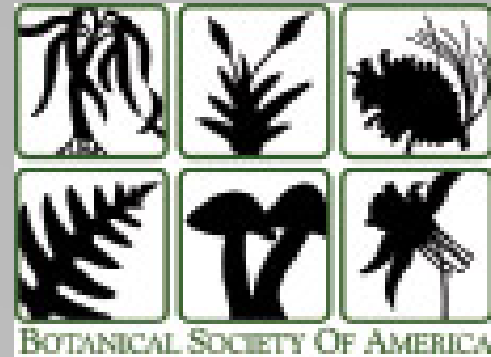
Trends in Agronomic Education

K-12

- Interest in science education is abysmal.
- Exposure to plant sciences is minimal.
- Teacher preparation does not generally include the plant sciences.

Opportunities:

- Teacher training programs.
- Development of plant science learning modules.
- Online mentoring programs.



The Concept

PlantingScience is a learning and research resource, bringing together students, plant scientists, and teachers from across the nation. Students engage in hands-on plant investigations, working with peers and scientist mentors to build collaborations and to improve their understanding of science.

