



## Optimistic outlook awaits ag graduates.

by *Kindra Gordon*

It's an exciting time to be in agriculture, with an abundance of career opportunities ahead. That's the report Don Marshall, director of academic programs for South Dakota State University's (SDSU's) College of Agriculture and Biological Sciences, shares for students pursuing ag-related majors.

"We've seen a strong market for ag jobs in the last decade, and that trend is expected to continue," indicates Marshall. He credits the optimistic ag outlook to the world's growing population.

Marshall notes that the global population is projected to expand to more than 9 billion people by the middle of this century, meaning 2.3 billion people will be added to the planet over the next four decades.

As a result, Marshall explains, there is a growing need for food and the myriad of products, research and industry related to agriculture, which also means career growth for the ag sector.

That uptick is already being seen. Marshall cites a U.S. Department of Agriculture (USDA) outlook report that forecasts 5% more college graduates with expertise in agricultural and food systems, renewable energy and the environment will be needed from 2010 to 2015 compared to the five years previous.

Specifically, the USDA study, titled "Employment Opportunities for College Graduates in Food, Renewable Energy and the Environment, 2010-2015," projects there will be an estimated 54,400 annual openings nationally for individuals with college degrees related to food, renewable energy and environmental specialties through the year 2015. Seventy-four percent of the jobs are expected in business and science occupations; 15% in agriculture and forestry production; and 11% in education, communication and governmental services.

The same report projects that there will

only be approximately 53,500 qualified graduates available each year — with about 29,300 of those students having specific ag-related degrees in those fields — resulting in job growth outpacing college graduates, and putting individuals with ag-related degrees and experience in demand, says Marshall.

### What's hot?

Marshall says, "Many of the traditional career areas, such as agronomy, livestock, feed, natural resources, food and dairy processing, and financial institutions, are still in demand, but there are also new career areas that are growing." As examples he cites careers in food safety, agro-security, biofuels, genetic technology, precision farming and technical support emerging for the future.

The USDA report pinpoints a few career fields that will particularly be seeking employees in the future, as well. They include:

- ▶ More graduates from the allied fields of biological and health sciences will be required to fill positions that address consumer preferences for a safe and nutritious food supply.
- ▶ Likewise, more earth and atmospheric scientists and environmental engineers will be required to deal with the evolving public policy choices in energy and the environment.
- ▶ Shortfalls of qualified graduates to work as plant geneticists and plant breeders, climate change analysts, and food safety and security specialists are anticipated during 2010-2015.

Marshall adds that as the global population and need for food grows, it could also create increasing challenges related to land and resource use, environmental management, animal welfare and keeping rural communities viable.

"Agriculture will face complex issues, and those issues will create careers in and of themselves. We will need people in those career areas who can provide leadership for agriculture and rural communities," he says.

### Preparing for the future

As students prepare for the ag career opportunities that await, Marshall encourages students to get involved beyond the classroom.

He notes that many universities offer career-planning service centers on campus that offer students assistance in exploring career options, locating potential employers, preparing a résumé, and finding internships. Likewise, many departments maintain physical or electronic bulletin boards to

publicize intern and career opportunities.

Marshall says getting involved in student organizations can expose them to guest speakers from industry, and through judging team opportunities students can also be introduced to industry leaders and beneficial experiences.

Last but not least, Marshall emphasizes the importance of students gaining work experience as they prepare for graduation. He notes that part-time student positions on campus provide an opportunity for students to gain experience related to their major, as does undergraduate research.

Internships can also be invaluable. “Internships are a great way for students to get their feet wet in the job market and start making contacts for permanent jobs,” Marshall concludes.



## Growing career fields

The opportunities — and occupations — in agriculture are diverse, with growth projected in many career fields. Specifically, the U.S. Department of Labor projects significant growth in selected food, renewable energy and environment jobs through 2018. Among those occupations and the anticipated percent increase in jobs include:

Agricultural inspectors (12.8%)	Food scientists and technologists (16.3%)
Animal scientists (13.2%)	Hydrologists (18.3%)
Biochemists and biophysicists (37.4%)	Market research analysts (28.1%)
Computer and information systems managers (16.9%)	Natural sciences managers (15.5%)
Credit analysts (15%)	Pest control workers (15.3%)
Environmental engineers (30.6%)	Public relations specialists (24%)
Environmental scientists and specialists, (27.9%)	Recreation workers (14.7%)
Financial analysts (19.8%)	Sales managers (14.9%)
	Soil and plant scientists (15.5%)
	Technical writers (18.2%)
	Veterinarians (33%)

**Source:** *Monthly Labor Review* (November 2009).