

## 2008 ADSA-ASAS Sectional Awards

### 2008 Northeast ADSA-ASAS Distinguished Service Award

**Steven Zinn** is a full professor with a research/teaching appointment in the Department of Animal Science at the University of Connecticut. Over the past 28 years, Zinn has provided excellent service to his community, his students, and his university, to the animal industry, to the Northeast Section of ASAS, and to the national American Dairy Science Association (ADSA) and American Society of Animal Science (ASAS).



Zinn has been a member of ADSA since 1980, a member of ASAS since 1982, and a member of the Northeast Section of ADSA/ASAS since 1989. In 1993, he was elected secretary of the Northeast Section of ASAS and served as vice president in 1994 and as president in 1995–1996. More recently, Zinn has coordinated the Northeast ADSA/ASAS graduate student presentation competition, including reviewing abstracts, identifying judges, and working with the Northeast officers and national committee to schedule the competition.

As vice president of the Northeast section of ASAS, Zinn was appointed to the ASAS board of directors (1994–1997). During his tenure on the board, Zinn was elected recording secretary and became a member of the executive committee. In addition, he was editor of ASASynopsis and a member of several committees, including the ways and means committee and the publications committee. Zinn was also a member of the ADSA physiology committee from 1993–1996, serving as chair in 1996, and a member of the board of directors of the ASAS Foundation from 2002–2005. More recently, Zinn chaired an ASAS board of directors' ad hoc committee on ethics.

Zinn's major contribution to the societies has focused on the journals. For years, Zinn was an ad hoc reviewer for both journals and in 1998 he was appointed to the editorial board of the *Journal of Dairy Science* (1998–2005). In 2000, he was appointed to the editorial board of the *Journal of Animal Science* (2000–2003) and,

subsequently, as the physiology associate editor in the animal growth, physiology, and reproduction division of the *Journal of Animal Science* from 2003 to 2005. In 2005, he was named division editor of this division. In September 2008, he will assume the position of editor-in-chief of the *Journal of Animal Science*. With this appointment, Zinn will again serve on the executive committee of the ASAS board of directors.

Zinn has received several awards for his research and teaching including the 1994 Northeast ASAS/ADSA Young Scientist Award, the 2003 College of Agriculture Research Excellence Award, the 2001 University of Connecticut Advising Award, the 2002 First Year Experience Instructor of the Year Award, and the 2002 College of Agriculture Alumni Teaching Award.

### 2008 Northeast ADSA-ASAS Young Scientist Award – Research

**Adam L. Lock** joined the faculty in the Department of Animal Science at the University of Vermont as an assistant professor in September 2006. He received



his BS and PhD at the University of Nottingham, United Kingdom, and before joining the faculty at the University of Vermont, Adam held research associate positions at the University of Nottingham and Cornell University. Lock's research involves animal production and human nutrition and health and the interface between these two disciplines. In the area of animal production he has investigated

ruminant lipid digestion and milk fat synthesis. These efforts have included the impact of dietary components on conjugated linoleic acids (CLA), and he was among the first to show that the major CLA isomer (rumenic acid) originated mainly by endogenous synthesis from vaccenic acid (*trans*-11 18:1). Lock has coauthored several seminal publications examining the role of bioactive fatty acids in the regulation of milk fat synthesis. These efforts have identified novel fatty acids that originate as intermediates in ruminal biohydrogenation of dietary unsaturated fatty acids, and this work has

greatly aided our understanding of milk fat depression on dairy farms. Furthermore, through conference and extension presentations and work with nutritional consultants and producers, Lock has been effective in applying this knowledge to troubleshoot milk fat issues on dairy farms.

Lock's research related to human nutrition and health has focused on the role of milk fat-derived bioactive fatty acids on human health, in particular *trans* fatty acids including CLA isomers. His investigations have ranged from biomedical studies involving the use of animal models of cancer and coronary heart disease to human clinical studies. They include the demonstration that vaccenic acid derived from milk fat was a potent anticarcinogen in a rat model of breast cancer and that this was due to its conversion to rumenic acid (*cis*-9, *trans*-11 CLA) in the animal's tissues via the enzyme  $\Delta^9$ -desaturase. Lock and colleagues also dem-

onstrated that dietary rumenic acid was able to lower total plasma cholesterol and improve the plasma profile of lipoprotein cholesterol when supplied in its natural form (esterified in triglyceride) as a natural food (butter) in biomedical studies with an animal model. Recently, Lock collaborated in a multinational project that extended this work to humans and demonstrated that *trans* fatty acids from dairy products were not a risk factor for cardiovascular disease as evidenced by plasma biomarkers. Earlier this year he was invited to be the opening speaker at a European Dairy Association policy meeting on *trans* fatty acids in Brussels at which there were a number of members of the European Parliament and European Commission.

Since completing his PhD in 2001, Lock has authored or coauthored 22 peer-reviewed journal articles, 14 invited reviews and book chapters, 27 conference proceedings, and 58 abstracts.