

Panel Session Notes:

Session 1: Food Security and Ag Production

Moderator: Dr. Ken Quesenberry, Interim Chair and Professor in Agronomy

Panelists:

Dr. Ken Boote, Professor Emeritus in Agronomy, UF IFAS

Dr. Walter Bowen, Director of International Programs in UF IFAS

Dr. Molly Jahn, University of Wisconsin/ Madison

Dr. Fred Kirschenmann, Iowa State University

Dr. Geoffrey Dahl, Professor Animal Science, UF IFAS

Notes by: Ashley Mason

What effect does increased populations have on business and policy related to food production, or is scarce energy the driver for changes?

- (Dr. Fred Kirschenmann)

Nature abhors excess density of any species, the human species is probably not exempt from that. We should accept the concept of carrying capacity and how this applies to us, essentially asking how many of the human species can the biotic system hold? Important aspect is also how to feed people, not just how to produce (inequity). Problems need to be solved as a pattern, not as isolated points.

- (Dr. Ken Boote)

We seem to have set population control aside, while this is something that should still be on the table. Not in the sense of regulations, but perhaps otherwise. Biotechnology to improve crops, such as pest resistance. Europe and USA are 40% of its saturating capacity, but the rest of the world still far behind on productivity; tropical places can increase 4 fold food production.

- (Dr. Molly Jahn)

The dynamics of poverty or critical to understand the needs of our population, as opposed to a simple head count. In addition to this it is necessary for use to understand our diet trends and caloric intakes (consumption patterns). Urbanization is another problem that we are facing right now (more people eating and less producing).

- (Dr. Ken Quesenberry)

With increasing urbanization of populations we are transporting and re distributing significant amounts of nutrients (P and K) to urban centers in foodstuffs that may become pollutants.

- (Dr. Geoff Dahl)

In regards to animal systems, ruminants are among the most important in that they recycle byproducts like cotton hulls. Animals are critical for nutrient recycling.

- (Dr. Walter Bowen)

The future of this is in urbanization. For example, urban apartment dwellers use less energy than rural inhabitants. Urban agriculture will be a component of this movement.

- (Dr. Fred Kirschenmann)

Sees instead a resettling of America in which population shifts back to rural areas. Concept of produce and eat locally (reduce transportation costs and impact).

Do urban dwellers lack knowledge, concern or willingness to change regarding climate change or agriculture (food production/distribution)?

- (Dr. Fred Kirschenmann)

Events like Sandy bring awareness to urban areas regarding their insecurity to severe weather and access to food.

- (Dr. Molly Jahn)

Urban dwellers must be educated in regard to conservation (and use) of natural resources.

- (Dr. Fred Kirschenmann)

Land degradation and conservation, increased concern from urban people (when they start learning the importance of the environment); local food system - how food travels, understand farmers;

How do we reinvent extension to address complex problems created by climate change?

- (Dr. Fred Kirschenmann and Dr. Molly Jahn)

A critical part of ensuring public knowledge is university extension. Importance of the dialogue and experience exchange with the producers was emphasized.

- (Dr. Fred Kirschenmann)

The overarching theme, historically in science is to break down challenges to their smallest components, then research and address the problem in those pieces. This is not the science that will address today's challenges. Cultural transformation in academy and research community;

How do we break down "silos" of discipline to foster interdisciplinary research that we all agree is needed to solve big climate change issues?

- Audience member Dr. Jack Payne

Today's problems will require a multifaceted approach that addresses the challenges of the systems. We need an interdisciplinary approach.

- Keynote speaker Dr. John Ingram:

Emphasized the need for interdisciplinary research to accommodate addressing challenges of our systems, rather than pieces of the systems. A critical part of this in University is to put thorough thought into the name of a building meant to bring many disciplines together. The inclusive nature of the name will dictate how departments and disciplines feel compelled to participate. Find a common language.