

## Special Seminar Hosted by

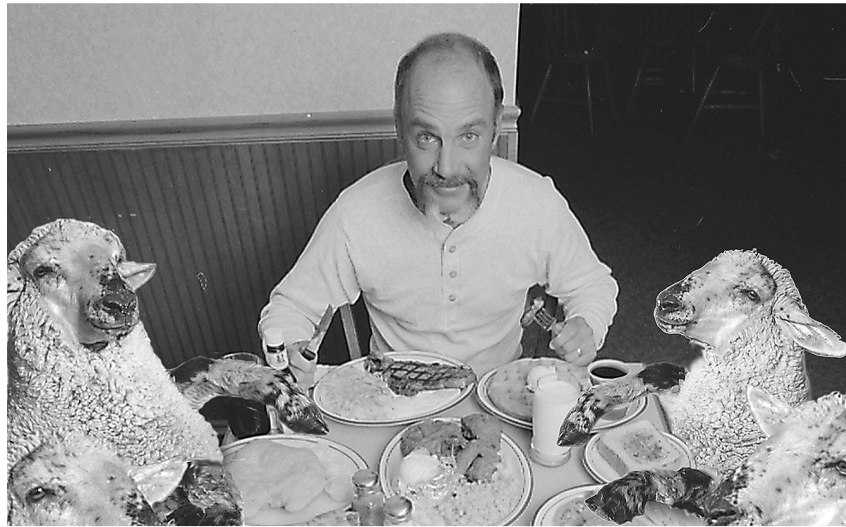
Department of Animal Science, Kellogg Biological Station and Sustainable Ag and Food Systems at  
MSU

### Dr. Frederick "Fred" Provenza

Professor Emeritus

Department of Wildland Resources - Utah State University

## "Palates Link Soil and Plants with Herbivores and Humans"



Thursday, October 12, 2017 - 3:00 pm

1240 Anthony Hall - Dept Animal Science, East Lansing MI

Friday, October 13, 2017 - 10:45 am

237 Stack Building - Kellogg Biological Station, Hickory Corners, MI

**Abstract:** Palates link soil and plants with herbivores and humans. An attuned palate, which enables animals to meet needs for nutrients and self-medicate to rectify maladies, evolves from three interrelated processes: flavor-feedback associations, availability of phytochemically rich foods, and learning to eat nourishing combinations of foods. That occurs when wild or domestic herbivores forage on phytochemically rich landscapes, is less common when domestic herbivores forage on monoculture pastures, is close to zero for herbivores in feedlots, and is increasingly rare for people who forage in modern food outlets. Unlike our ancestors, the palates of many humans are no longer linked in healthy ways with landscapes. Industrial farming and selection for yield, appearance, and transportability diminished flavor and nutritive value of fruits and vegetables. Phytochemically impoverished pastures and feedlot diets can adversely affect the health of livestock and the flavor and nutritive value of meat and dairy products for humans. Unfortunately, while the flavors of produce, meat, and dairy have become blander, processed foods have become more desirable as people have learned to link synthetic flavors with feedbacks from energy-rich compounds that obscure nutritional sameness and diminish health. Thus, the roles plants and animals once played in nutrition have been usurped by processed foods that are altered, fortified, and enriched in ways that can adversely affect appetitive states and food preferences. The need to enrich and fortify foods, and to take nutrient supplements, could be reduced by creating phytochemically rich plants, meat and dairy products and by creating cultures that know how to combine foods into meals that nourish and satiate.