

Production System Issues

This group decided to rename the focus area Production Systems, rather than Food Systems, to better reflect the scope of agriculture from grower to consumer, including

- Production
- Farm-to-fork
- Food safety/security (chain from farmer to consumer regardless of the actual community)
- Logistics/transportation

Critical Issue #1: How do we deal with consumer-driven production systems? (region-wide)
For example:

- **Organic**
- **Conventional**
- **Local**
- **Source verification**
- **Urban**
- **Crops for health**
- **Emerging**
- Perception of conventional production vs. organic production (RW, global)
- Uninformed consumer confusion (GMO, organic, natural)
- Increase local food production (RW)
- Biotechnology, conventional and organic integration
- Sustainability => using all resources economically => human inputs AND natural inputs (H2O, energy, fertilizer) (global)
- Consumer preferences => education on the *value* of agricultural items (RW)
- Viticulture and Enology (RW, global)
- Capturing more value (local) – post harvest. VALUE-ADDED
- Public demand for organic or is outpacing investment in research to maintain economically sustainable production (RW)
- Support to beginning and small urban fringe farms
- Policy development for sustained production
- Conventional versus “natural”/”organic” – costs involved, consumer acceptance, markets (local)
- Constraints Young farmer & rancher & grower opportunities (land, funds, mentors/network)
- Farmer market operations
- Market Fragmentation: locavores; organic; green-sustainable; non-GMO; ready to eat – minimum prep. Opportunity for new consumers – increased value
- Crops for health – using food for health, to treat and prevent disease (i.e., beans to prevent breast cancer) (RW)
- World café comments
 - The central definitional role of land grant universities is development & extension (implementation) of technologies (new knowledge) to assure the productivity, sustainability, & competitiveness of agricultural production systems
 - And, consumer understanding & acceptance of technologies (food is safe!)

Critical Issue #2: Ensuring a safe, sufficient, and secure food supply (region-wide - global):

- **Accessibility (socioeconomics, e.g., food deserts)**
 - **Nutritious (fresh fruits, vegetables, e.g., food deserts)**
 - **Food safety throughout the value-added chain (processing & distribution system)**
 - **Importance of plant & animal health in food safety & security**
- Food safety: pests; disease; consumer behavior
 - Food safety; raw and processed products
 - Need continued food safety research from an integrated/systems approach
 - Food safety along the distribution chain
 - Food deserts (availability)
 - Food security: access to affordable, nutritious, food
- World café comments:
 - o Using science to help production agriculture with regulations
 - o Food storage, preservation

Critical Issue #3: Awareness, development and adoption of new technologies, applications & methodologies (region-wide)

- Yields under various pressures – biotic and abiotic (global)
 - Breeding/and GM to respond to climate change
 - Enhance understanding and use of sustainable production practices (RW, global)
 - GMO technology acceptance and/or necessity
 - Food labeling (non GM/GM)
 - Need social research aimed at increasing consumer/public acceptance of new technologies, including GMO's, that will be needed to feed 9 billion people by 2050
 - Recognize the role of transgenics in fulfilling global food demands
 - Need production systems (crops/commodities) that are resilient to climate change
 - GMO's: education, use, impact on consumption
- World café comments:
 - o And, consumer understanding and acceptance of the technologies

Other Issues Related to Production Systems:

- Animal Systems (RW)
 - o Animal welfare
 - o External pressures: PETA, other organizations
- Water
 - o Water: availability; quality
 - o Water pricing and availability (RW) (but discussed in NRM)
- International
 - o Export markets: growing markets; maintaining markets
 - o Input/Export of food, grain, and animals and global concerns (global)
 - o Trade policy complexities (GMO and safety)

- Broader market access (quarantine systems, trade agreements, etc.)
- Increased complexity of export regulations; trade barriers (phytosanitation)
- International competitiveness challenged
- Labeling “cool” food products
- Public Education and Policy
 - Educated public – that know how food gets to their plate (RW)
 - Need to recognize that the “West” produces more than 400 commodities: “The West sets America’s Table” (RW)
 - Failure of general public to recognize where their food comes from (national-wide)
 - Impact of invasives on production (prevention and management) (RW)
 - Urban-rural interface (issue of air, pesticide uses)
 - Urban understanding of production agriculture
 - Food waste: food distribution mechanisms; public behavior
 - Price of food: pushing small producers out of business by asking: “Who sells one gallon of milk for \$2.00 rather than negotiating price with producer?”
 - Regulatory decisions being more based on public opinion rather than on sound science; now being driven by retailers
 - Need to limit scope to those items we are able to impact (RW)
 - Food distribution over long distance (US Pacific)
 - Loss or inadequacy of crop protection materials and methods by state and federal regulation; **resistance issue new invasive pes ??** (RW)
 - Transportation costs, avail. Carbon footprint, weight limits, regulations
- Labor
 - Labor: lack of available skilled labor; immigration issues
 - Availability of farm labor
 - Labor and workforce availability
 - Labor shortage: skilled, field, processing
 - Competitive food systems: labor, environmental (RW)
 - Labor availability and cost: limited and more costly = higher cost to consumer and offshore competition issues