

# **A History of the Agriculture of the Middle Multi-State Research Project**

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# **A History of the Agriculture of the Middle Multi-State Research Project**

## **Introduction**

This history was prepared in order to capture a significant amount of the work of the Agriculture of the Middle (AOTM) Initiative, from its early beginnings in 2004 to the present. What it doesn't capture is the enormous amount of work, camaraderie, conversation, debate, planning, recruiting, and enjoyment that has gone into the last 21 years (two years of planning and 19 years of formal meetings).

The report is organized into eight sections: first, the history of the development of the multi-state committee; then a synopsis of each year's meeting, including a few key publications; and a brief narrative on the changes in the project's objectives as the Committee was renewed every 5 years. The next section describes many of the accomplishments (outputs, impacts), and the outreach activities of the group. The report concludes with a brief summary, a listing of sources, and acknowledgements.

## **The Early Years**

Many threads were woven together to bring the AOTM into being. The first was the extensive literatures of the 1960s, '70s, and '80s from multiple disciplines, which described, among other things:

- The disappearance of mid-sized farms
- The dwindling share of the food dollar received by farmers
- Concentration and competition in agriculture
- Supply chains and business networks
- Alternative agricultures, including organic
- Sustainable food systems

Two earlier multi-state projects informed the structure of, and participants in what became the multi-state AOTM group. First, NE 185 (Local Food Systems in a Globalizing Environment) functioned from 1997 to 2002. One objective of the project was the development and application of a protocol for documenting and assessing local food systems with easily available secondary indicators and

selected primary data. The second objective looked at the forces that mediate consumers' relationships with the 'food system.'

The work of NE 185 was continued and redirected through the follow-on committee, NE 1012 (Sustaining Local Food Systems in a Globalizing Environment), which functioned from 2002 to 2007. The researchers shifted their focus from descriptions to analyses and collected a set of case studies grounded in local contexts, such as local grocery stores. The aim was to develop a more thorough dynamic and multi-dimensional understanding of the variations in food systems in the Northeast and their impacts in different locales.

The early conceptualization of AOTM was initiated by Fred Kirschenmann and colleagues at the Leopold Center at Iowa State University. They started by reviewing the research on the disappearance of midscale farms by Breimeyer (1982), Buttel (1983), Strange (1989), and others. In 2003, Kirschenmann, Steve Stevenson from the Center for Integrated Agricultural Systems (CIAS) at the University of Wisconsin, and Tom Lyson of Cornell University engaged many others in this conversation, including the USDA's Sustainable Agriculture Research and Education (SARE) program, farmers, and food industry specialists. The momentum led to a conference on the topic sponsored by the Kellogg Foundation and the Johnson Foundation at Wingspread.

At the conference, a task force was formed to proceed with the development of the AOTM Initiative, propelled by a white paper titled "Why Worry About an Agriculture of the Middle?" authored by Kirschenmann, Stevenson, Lyson, Fred Buttel, and Mike Duffy. In the paper, originally published by the Leopold Center in 2004 and later included as Chapter 1 in *The Remaking of the North American Food System*, the authors envisioned the long-term outcomes of the initiative:

- The development of more comprehensive, regionally appropriate, and ecologically sound agricultural production systems
- The creation of new market structures/models and marketing relationships for mid-sized farms that create and retain greater value in the farm and rural community sectors
- The exploration of policy alternatives that support these new marketing models
- The education of a large number of consumers in the market of the middle who are aware of the contributions of the agriculture of the middle and who support these farmers
- Assurance that the information and data on other inputs needed for healthy, diverse food systems remain in the public domain

The original initiative had three major components:

- A business development group called the Association of Family Farms. Its goal was to develop new business and marketing structures and strategies for these farms. Kirschenmann led the work, along with Larry Yee, Farm Aid, and other parties. Their efforts continued for about eight years but did not come to fruition.
- A policy group. Its members explored policy alternatives to support these new systems and values-based supply chains. It was composed of Ferd Hoefner from The National Sustainable Agriculture Coalition (NSAC), Scott Marlow from Rural Advancement Foundation International (RAFI), Stew Smith at the University of Maine, and Kate Clancy from AOTM. Several of the group's early actions included proposing language to USDA for the definition of "local food" and offering many suggestions for the writing of RFPs in the different USDA's National Institute of Food and Agriculture (NIFA) categories.
- A research and education group. Its goal was to develop a national cadre of researchers and food systems practitioners with expertise and commitment to micro-enterprise food systems analysis and reform. Information was lacking on new models that would enable farmers and other community entrepreneurs to become full time partners in business venture, so they and their communities could improve their economic viability. This group was to provide the research necessary to justify the overall approach.

### **Development Committee: NCDC 207 (2005–2006)**

In 2005, USDA approved a development committee (NCDC 207) to set the objectives of a new multi-state committee on AOTM under the aegis of the Cooperative State Research, Education, and Extension Service (CSREES). At the first meeting in St. Louis, led by Stevenson, the 17 attendees began to develop priority areas for research by looking at collaborations, time frames, specific socio-economic issues, and the need to recruit more natural scientists (e.g., crop, animal, environmental). The attendees talked about potential collaborations with other USDA agencies, how to synchronize research across supply chains and across policy campaigns, how to provide briefings for legislative staffers, and possible funding sources. They made plans to draft a full proposal, form a working group, create a glossary of terms, and assign participants to develop four relevant literature reviews.

The committee operated with the assumptions that Stevenson had laid out in late 2005:

- Farms, ranches, and fisheries of the middle are disappearing because they are increasingly unable to compete successfully in national and global agricultural commodity markets and are not often in a position to market differentiated food products directly to local consumers.
- There are growing markets for significant volumes of differentiated products that farms, ranches, and fisheries of the middle are uniquely positioned to serve.
- The mid-tier value chain model (values-based food supply chains, VBSCs) is a promising business model that could address the above problems and capitalize on opportunities in the marketplace.
- Literature indicates that value chain business models are the most effective for combining scale with product differentiation to achieve collaborative advantages in changing marketplaces.
- Effective food value chains are likely to be regional in scale and focus.
- Value chains are both smart and right.
- Engaging consumers in the value chain will be an important task.

The proposal was submitted by CIAS and the University of Nebraska to USDA CSREES, which approved it. Titled “Research and Education Support for the Renewal of an Agriculture of the Middle,” the proposal had four objectives:

1. Estimate and evaluate the consumer demand for differentiated agricultural products that can most effectively be provided by VBSCs.
2. Conduct research to identify biological production approaches and assess their profitability in alternative farming and ranching systems that produce differentiated food, fiber, and other products suited for marketing through mid-tier, values-based business approaches.
3. Identify and conduct research to evaluate the functioning of alternative marketing systems that link producers with consumers.
4. Identify and conduct research to evaluate alternative public policies that will have an impact on objectives 1–3.

## **Synopses of Annual Meetings (2006–2024)**

The committee meets once a year in October. The first agenda item for every meeting is introductions and progress reports from each member on their work during the previous year on AOTM and non-AOTM issues. Also, in each meeting the group has teleconferences with the USDA NIFA Administrative Advisor for

the Committee and the NIFA program officer. They choose the Chair for the next year, and the Chair also assigns tasks for preparation of the annual report to USDA.

## **NC 1036 (2006–2010) Advancing Research, Education, and Policy to Support Renewing an Agriculture of the Middle**

### 2006

Steve Stevenson (Chair), 11 attendees. NC 1036 formally convened for the first time as a full-blown multi-state research/outreach committee at a meeting at the University of Minnesota. About half the members had already worked together in NE 185 and NE 1012, described above.

The functions of the working group were to act as information sources, research generators and coordinators, and toolbox generators for research, outreach, and teaching methodologies. This inaugural meeting established the role of the committee to provide research-based information and education to support the business development and policy change components of the larger initiative. The group discussed priority research/education areas and frameworks for the proposed work, how to synchronize research across food supply chains, and funding opportunities. They talked about the recently funded National Research Initiative (NRI) (1990–2008) proposals of several members, including an award to Stevenson, Larry Lev, and Smith to develop four case studies of business alliances formed between mid-sized farmers/ranchers and their supply chain partners.

They also explored how to address the big “elephants in the room”: climate change, energy dynamics, water sufficiency, and socioeconomic inequity.

Out of these discussions, six working groups were formed: decentralized bio-based systems, production and transaction cost analyses for mid-scale producers, regional mid-scale meat processing enterprises, public policy related to AOTM issues, economic and nutritional interactions of alternative foods in public schools, and community dynamics related to AOTM issues.

In late 2006, Hoefner and Clancy invited a number of USDA scientists to meet to discuss policy issues and policy research needs related to AOTM. The meeting was a success, and subsequent meetings and discussions helped to secure a long-term interest in the initiative among USDA staff in different agencies.

## 2007

Steve Stevenson (Chair), 13 attendees. The committee continued organizing its work at the second annual meeting. Its overall goal was restated as the creation of a third tier in the food system that serves the emerging demand for highly differentiated food products alongside mass produced commodity markets and direct markets.

First, the business development and public policy working groups reported on their work. Then the group discussed several recently funded NRI projects—farm-to-school and VBSCs—and two USDA Rural Development grants to identify regional value clusters and to study midscale poultry processing.

The group made plans to recruit scientists with an interest in agroecology, and identified working groups related to life-cycle analyses, the economics and logistics of distribution systems related to food service enterprises, on-farm energy production, and production related to emerging food safety regulations. Between 2007 and 2008, the first set of case studies was generated by Stevenson, Lev, King, Clancy, Hardesty, and others.

## 2008

Steve Stevenson (Chair), 15 attendees. This meeting was held in Portland, Oregon, in conjunction with a national workshop on food value chains led by Lev, which included the leaders of the four companies profiled in the first set of case studies. The directors of Shepherd's Grain, Red Tomato, Organic Valley, and Country Natural Beef talked about the challenges and successes they were facing in utilizing AOTM concepts in their businesses. This information provided guidance for the attendees and ideas on how to structure a second set of case studies that began in 2009.

The AOTM meeting began the day after the workshop. Kirschenmann and Clancy described research issues associated with the business development and public policy components of AOTM, respectively. Then members reported on the NRI Agricultural Prosperity for Small and Medium Sized Farms program grants they had procured: Farms to University Supply Chains, Regional Food Distribution Networks, and Values-Based Supply Chains. One member described another grant from the USDA Rural Development NRI: The Identification of Food Value Chains in Three Regions of the U.S. The first day's agenda also included a conversation with a representative from the Wallace Center and a discussion of additional funding sources for short-, medium-, and long-term research.

The second day's discussion covered the development of a comprehensive research agenda for AOTM, including possible funders for the effort; and potential areas of research collaborations with agroecologists. This led to the formation of two discussion groups addressing (1) carbon sequestration and life-cycle analyses of Country Natural Beef operations, and (2) the Green Lands Blue Waters project in the Upper Mississippi River Basin. In addition, the group discussed the identification and recruitment of scientists with research expertise in areas missing from the present membership roster, and confirming the organizational structure of committees.

In early fall 2009, an online survey of committee members was conducted to compile information on research, outreach, and other projects related to AOTM (published as *A Research Approach for AOTM*, by Buckley, Conner, Bingen, Painter, and Stevenson). The results were used to plan the agenda for the meeting, assist in grant reporting, contribute to future collaborative work, and guide fundraising.

#### 2008 publications:

Hinrichs and Lyson (editors). *The Remaking of the North American Food System*. University of Nebraska Press.

This book contained the writings of NE 185 and NE 1012 members and others. The authors "wrote with the belief that viable alternatives can best take root and flourish through a process of careful description, monitoring, empirical evaluation, and critical appraisal" (p. 3).

Lyson, Stevenson, and Welsh (editors). *Food and the Mid-Level Farm*. University of Nebraska Press.

This book covered concerns about and research on mid-scale farms and supply chains, including the essay "Why Worry About the Agriculture of the Middle?", organizational structures, supply chain relations with consumers, and policies that support AOTM.

#### 2009

Steve Stevenson (Chair), 18 attendees. The group met in Colorado in conjunction with the Annual Meeting of the Food Distribution Research Society. The agenda included discussions about the survey results, short presentations from the business development and public policy groups, the organization of research teams, and a decision to renew NC 1036 for another five years. This was followed by a teleconference with a representative of the Wallace Center, a discussion of

recruitment plans for new members, and a plan by Painter to create a website. A call with the USDA NIFA officer focused on the reorganization of USDA.

The group also spent a significant amount of time discussing another project to encourage better targeting of AOTM research topics by interviewing researchers who were already engaged with relevant research issues. Fifteen researchers from around the country were asked to describe their top four priority research projects for moving organic and sustainable agriculture forward. The Organic Farming Research Foundation sponsored this first phase of the project and published the results in 2008.

Phase two, funded by the University of Nebraska-Lincoln Center for Applied Rural Innovation, included interviews with 35 more researchers from a broad range of disciplines, all of whom were interested in AOTM. The highest priority research ideas for AOTM fell into four clusters:

- Impacts (economic, environmental, social equity, food security)
- Incentives (influence on ecosystem services, policy for organic agriculture)
- Scale (policy influences on profitability at different scales, scaling up from local to regional, food safety regulations and scale)
- Value chains (marketing systems and viability for farmers, partnerships)

2009 publications:

Case studies of Shepherd's Grain, Red Tomato, Organic Valley, and Country Natural Beef. AOTM website.

A teaching curriculum and a policy analysis derived from the studies. AOTM website.

## **NCDC 223 (2010–2012)**

### 2010

Larry Lev (Chair), 13 attendees. NCDC 223 was set up as the development committee for the next iteration of the research and policy group (which had merged). The two-year effort was designed to provide time to analyze what had been learned and to develop next steps. The group met again in Minneapolis (as it continues to do). Kirschenmann offered his ideas on big picture issues to which AOTM should be attending, including ways for value chains to be more competitive, diverse marketing options, and climate change effects. Stevenson offered a set of research areas that deserve consideration: What is the role of consumer connections to supply chains? What are labor conditions across supply chains? Is it possible to grow the artisanal sector?

The group then began the transition into preparation of a new five-year proposal and identified research areas for short- and middle-length research projects for the future under the themes of economics, social concerns, policy, and environment. They discussed a landscape objective but did not incorporate it into the final proposal because of the members lack of expertise on the relevant topics.

The next morning, Clancy reported on the Farm Bill negotiations, facing a situation of no new money with trade-offs between nutrition and conservation programs and many unfunded programs , such as the Wetlands Reserves, the Rural Micro-Entrepreneur, and the Specialty Crop Research Programs.

The final items were agreement on a new leadership model and assent to the priority research report, which was published at the end of the year.

2010 publications:

Clancy and Lehrer. A priority research agenda for Agriculture of the Middle. AOTM website.

2011

Larry Lev (Chair), 15 attendees. This meeting focused on two issues. In anticipation of the new committee proposal, a small group led the other members in an effort spanning many months to characterize and define Agriculture of the Middle and values-based supply chains (VBSCs).

Their final document, which was published on the website, described AOTM farms as being characterized by

- Size. These farms have \$50,000 to \$500,000 of gross net sales (in 2011 dollars).
- Identity as business organizations. They are farming occupation or large family farms that rely on farming as the major source of household income. One or more family members make the majority of on-farm management decisions.
- Production and management strategies. Mid-sized farms market differentiated food products through wholesale supply chains and maintain high environmental standards. Their markets are larger than direct markets and more differentiated than commodity markets.

Another small group gathered the terms being used to describe supply chains and discussed the definition of a VBSC. The definition they agreed on elevated the

importance of values embedded in the foods themselves, as well as values along all nodes of supply chains.

The second issue was making final decisions on the objectives for the proposal for a five-year extension of the multi-state initiative. Joe Colletti, the NIFA administrative advisor, explained the process of submitting the proposal to USDA, and the group worked to arrive at an agreement on the final content.

In the policy segment, Clancy reported on the Farm Bill that was under pressure that year because of the budget deficit. Concerns about large cuts in farm, research, and anti-hunger programs were high.

The meeting concluded with decisions about the site of next year's meeting.

2011 publications:

Five papers in a special issue of the *Journal of Agriculture, Food Systems, and Community Development* featuring small and mid-scale food value chains, explained in detail the concerns regarding mid-scale agriculture and the work of the AOTM committee:

- Stevenson et al. Midscale food value chains: An introduction.
- Lev and Stevenson. Acting collectively to develop mid-scale food value chains.
- Conner et al. Value chains for procurement in large school districts: Fostering partnerships.
- Diamond and Barham. Money and mission: Moving food with values and value
- Jablonski et al. Food value chains development of Central New York: CNY Bounty.

## **NC 1198 (2012–2017) Renewing an Agriculture of the Middle: Value Chain Design, Policy Approaches, and Environmental and Social Aspects**

Larry 2012

Larry Lev (Chair), 18 attendees. NC 223 led to NC 1198, which commenced in 2012.

The group discussed each objective extensively in breakout groups. They recommended developing a library of case studies (by AOTM and others) organized by attributes, examining the relationships across cases, and developing indicators of successes that are multi-faceted (addressing Objective 1). This library would enable researchers to study the operationalization of the assumption that VBSCs want to internalize environmental externalities (Objective 2), how

environmental values are captured and what importance producers place on ecosystem services, and how to measure and understand “values” for producers receiving government subsidies (Objective 3). The library would also aid in the development of a policy agenda, offer a way for all AOTM members to include policy questions in their research, and allow them to perhaps interact with other policy centers across the United States (Objective 4).

Discussions also explored new issues being studied, including management decisions in VBSCs, the management of rural landscapes, and the impact of private sector policies; the benefits of the multi-state AOTM to a national network of researchers and practitioners who often don’t have support at their universities and/or have limited collaboration opportunities; the progress so far on collaborative research projects submitted by members of AOTM; ideas for new funding sources; and the feasibility of doing a case study meta-analysis.

#### 2012 publications:

Conner et al. Sustainable school food procurement in large K–12 districts: Prospects for value chain partnerships. *Agricultural and Resource Economics Review*.

Lerman, Feenstra, and Visher. Annotated Bibliography of Publications and Resources on Food Hubs and Values-Based Supply Chains. University of California-Davis Sustainable Agriculture Research and Education Program (SAREP).

#### 2013

Hikaru Peterson (Chair), 18 attendees. The morning agenda included a discussion of five AFRI proposals submitted earlier in the year that involved multiple AOTM members. The AOTM website, which had been based at CIAS at the University of Wisconsin, was the topic of extensive discussion regarding CIAS’s continued role, updating content, the website’s audience, and the scope of content. A small group was formed to oversee these actions. This was followed by suggestions for AOTM outreach via symposia at professional conferences, including meetings of the Agricultural and Applied Economics Association; Agriculture, Food, and Human Values; and Rural Sociology. There were questions about why this was needed, planning turn-around times, who would participate, and the need for AOTM to have a repository of resources. Another small group discussion report was on college courses that have AOTM content, and sharing educational resources.

The second day began with a policy report focused on the many changes proposed to the Farm Bill and the Food Safety Modernization Act, which caused great

concern among group members. Because of the government shutdown, members also discussed funding options outside of federal grants. The conversation produced many insights on how AOTM is perceived by its own members and the challenges of attracting more interest, attention, and new members. Overall, members agreed that AOTM is about ideas; its members do rigorous applied research; the goal is to save mid-sized farms and food entrepreneurs; it is unclear whether this group is unique, the group needs to be clearer about accomplishments, it's hard to market supply chains, and it is important to encourage business relationships with moral dimensions.

The final agenda item was breakout groups to examine each of the objectives for new research ideas. These included King's work on state-level food systems indicators, Larry Burmeister and Keiko Tanaka's research on labor issues within VBSCs, and health care as an issue for many farms and food enterprises.

The case studies were updated and new case studies on distributors were added: Co-op Partners Warehouse, Full Circle Farms, Home Grown Wisconsin, Idaho Bounty, and Good Earth Farms.

2013 publication:

Lev, L. Values-based food supply chains: An introduction to nine case studies. AOTM website.

2014

Hikaru Peterson (Chair), 17 attendees. Three recently funded projects opened the group discussions. Lev presented information about a grant looking at specialty food opportunities for small and medium-size farms. Peterson then shared a project involving three AOTM partners on the impact of VBSCs on small and mid-sized farms; the goal was to generate a searchable VBSC database. This instigated an extensive discussion on the numerous fields that describe VBSCs, such as organizational forms, key partners, governance, performance, risk across supply chain actors, and many others. Another question arose as to how to clarify benefits of VBSCs to participating farms and how to promote participation in surveys. The group generated six strategies to address the latter concern. The third presentation, by Michelle Miller, described projects related to food and freight, including a study of distribution efficiencies in the Chicago area.

The next agenda item was updates from the 2013 meeting, including a discussion of the AOTM website, how to maintain it at CIAS, and who would manage

content. The final item was suggestions for AOTM showcase opportunities (e.g., a seminar with European parties, a joint conference on supply chain governance).

Stevenson et al. (see below) prepared an encyclopedia entry on the ethical issues attendant to AOTM in five areas: 1) diversity, resilience, competition, and opportunity in agriculture, 2) fairness and equity through the supply chain, 3) consumer choice and control, 4) environmental stewardship and ecological health, and 5) rural vitality.

#### 2014 publications:

Hardesty et al. Values-based supply chains: Supporting regional food and farms. *Economic Development Quarterly*.

Stevenson et al. Agriculture of the Middle. In Thompson, P.B. and Kaplan, D. (eds.) *Encyclopedia of Food and Agricultural Ethics*. Springer.

King et al. *Growing Local: Case Studies on Local Food Supply Chains*. University of Nebraska Press.

#### 2015

Mary Hendrickson (Chair), 25 attendees. Group discussions began with updates on currently funded project teams and work groups: (1) the specialty food project, (2) the AOTM impacts project to provide a database on VBSCs so people will know what has been studied and plan future research, and (3) the work group on labor, land tenure, ownership, and power.

The afternoon items included an overview of the proposed layout for the website, and a teleconference with Jill Auburn on present NIFA directions and opportunities for research of interest to AOTM members. The remainder of the day was spent in three working groups that engaged with a set of brainstorming topics. One group explored farm viability and directions for future research: what helps or prevents farm viability, and where there are good tools for farmers. The labor group recommended placing more focus on farm internship issues, fair labor, and labor relationships and asked whether fair labor is part of the values-based proposition. The wholesale research group argued that we should work with multiple scales, find ways to assist with scaling up farms and food enterprises, and consider how food safety regulations affect different types of farms and scales.

The second day was devoted to small group discussions and reports on the four project objectives, including new research ideas for each. The meeting ended with thoughts on reaching out to potential new members.

#### 2015 publications:

Hullinger and Tanaka. Agriculture of the Middle participation in state branding campaigns. *Journal of Agriculture, Food Systems, and Community Development*.

Lev et al. Values-Based Food Supply Chains. In *The SAGE Encyclopedia of Food Issues*. SAGE Publications.

#### 2016

Clare Hinrichs (Chair), 21 attendees. This was the last year in the original 1198 project, so the group discussed renewing the project for the next five years. USDA liaisons said they were pleased with how AOTM had proceeded and that the committee was a good candidate for renewal under the same project number. Members shared updates on the specialty crops and VBSC benefits and challenges projects, as well as discussing the domestic fair trade project. The remainder of the meeting addressed the preparation of new objectives in small and whole-group discussions of a variety of topics that are ripe for research. These included the communication and coordination of supply chains, scaling up supply chains, supply chain accessibility, growing inequality in farm matters, farm labor, individual farm behaviors in a region, and land control.

Members signed up to prepare sections of the renewal proposal, agreed on the components of the year-end report, and chose a new chair. The meeting ended with agriculture and food policy updates, discussion about policy capacity-building among members in areas such as policy sections in grant proposals, a workshop on writing policy briefs, a briefing of Congressional staffers (that would require a list of project outcomes), cataloguing policy efforts, and translating research findings into language/positions to be used in outreach.

#### 2016 publications:

Clancy, Brekken, and Gwin. Why and how to include policy in Agriculture of the Middle research: a primer. AOTM website.

Feenstra and Hardesty. VBSCs as a strategy for support to mid-size producers in the U.S. *Agriculture*.

Fleury, Lev, et al. Developing mid-tier supply chains (France) and values-based supply chains (USA): A comparison of motivations, achievements, barriers and limitations. *Agriculture*.

## NC 1198 (2017–2021)

### 2017

David Conner (Chair), 21 attendees. This was the first year of the new 1198 project which had five objectives-see p. 27. Members discussed the objectives, shared updates on their work in the past year, and reported on the projects studying the impacts of VBSCs on farms and vertical integration.

In the afternoon, the group discussed five cross-cutting issues:

- Definitions of scale within AOTM and VBSCs
- Big data and data collection in the face of farmer fatigue
- Aggregation/distribution
- Labor, wage, and ownership issues
- Race, ethnicity, and gender issues

The policy session on the second day included updates on the Farm Bill, a session on how to write policy briefs, and an update from NSAC on their history and plans to work with the AOTM group. The meeting ended with an update on the website and the selection of group leaders for each project objective.

2017 publications:

Burmeister and Tanaka. Farm labor practices in VBSC agrifood supply chains. *Journal of Agriculture, Food Systems, and Community Development*.  
Ostrom et al. Values-based food chains from a trans-Atlantic perspective: exploring a middle tier of regional agrifood system development. *International Journal of the Society of Agriculture and Food*.  
Peterson et al. Impact of VBSCs on small and medium-sized farms. *Journal of Food Distribution Research*.

## 2018

Keiko Tanaka (Chair), 21 attendees. The morning agenda included project reports on fair labor (by Miller), the economic returns to VBSCs by large and small farmers (by Christine Brekken), the state of specialty food processing (Lev), and VBSCs for cider makers (by Marcia Ostrom and Conner). The group then talked about the possibility of publishing a book or special issue of a journal on AOTM work.

The policy session focused on the policy components of ongoing research and included a conversation on holding an AOTM meeting in Washington, DC at some point, farmland access, food policy councils, city/metro financing for food system infrastructure, the formalization of value chain coordination, urban zoning, beginning farmers, and farm to institution.

The call with NSAC focused on the relocation of NIFA and the USDA's Economic Research Service (ERS) out of Washington, DC and the lack of transparency in the process, which did not involve the research community.

### 2018 publications:

De Master. New inquiries into the agri-cultures of the middle. *Culture, Agriculture, Food and Environment*.

Lev et al. A set of fact sheets derived from a project on the opportunities for small and medium-size farms to enter the specialty food marketplace. AOTM website.

## 2019

Mary Hendrickson (Chair), 19 attendees. Members reported on newly funded research projects on grasslands, hazelnut crops, domestic fair trade, rural wealth creation, institutional markets, and two AOTM collaborative projects: one on developing regional crop ciders, and one on farmer benefits of VBSCs. Tricia Kovacs discussed Agricultural Marketing Service (AMS)/USDA undertakings, as well as surveys and agreements that are available from the agency.

The group noted several areas that need more attention in AOTM:

- Competition
- Survey methodology, including the issues of farmer survey fatigue, the cost to researchers of fewer data, bringing ethnographic methods into survey protocols, paying more attention to supply chain nodes, and data security
- The use of big data in AOTM

- The definition of VBSCs and how to define them with precision but flexibility for different research goals.

The second day's agenda items were policy-related updates from all members addressing multiple policy issues at different scales, including work with food policy councils, Farm to Institution, farmland access and transfer, collaboration with the Organization for Competitive Markets on concentration, and food safety. This was followed by a briefing from NSAC on (1) the relocation of ERS and NIFA employees, (2) climate change policy, and (3) action around immigration policy.

2019 publication:

Brekken et al. Economic impact of VBSC participation on small and mid-sized produce farms. *Journal of Food Distribution Resources*.

2020

Kathy De Master (Chair), 22 attendees. The meeting was conducted via Zoom because of the COVID pandemic. Members reported on farmland succession and transfer/farmland access, frozen regional foods, local food responses to COVID, a follow-up on the cider survey, value-added retail, and rural wealth creation. These updates were followed by a discussion of conceptualizing regional food systems, the role of VBSCs, and the difficulty of transforming locally based network connections into regionally based systems. Other discussions focused on the competition issues surrounding AOTM, including market access for small producers, understanding how values shape both supply and demand curves, and how farmer expectations of fairness can shape producer participation and influence competition policy.

Other reports offered results from 1) research on understanding how urban food policies support farms, ranches, and rural communities, particularly how these policies impact mid-scale operations; 2) farm-to-school/institution procurement from regional producers; and (3) new market development and training for small/mid-scale producers and food hubs.

On the second day, Clancy and Lauren Gwin led interactive discussions on federal policy efforts of concern to AOTM and state policy issues with which members were involved. The state policy lists led to proposals for collaboration on some overlapping issues.

2020 publication:

Clark et al. A contemporary concept of the value(s)-added food and agriculture sector and rural development. *Frontiers in Sustainable Food Systems*.

2021

Becca Jablonski (Chair), 28 attendees. The Zoom meeting focused on the continuation proposal for the next five-year iteration of AOTM. After Clancy provided a brief history of the AOTM initiative, discussion began on the objectives of the new proposal and details of a writing plan and timeline. Next, members shared the COVID-related research and Extension activities they were doing to support farmers, ranchers, communities, and economies in coping with the many challenges of the pandemic.

The group moved on to breakout group discussions on the emerging topics of labor and supply-chain resilience and an update on the activities of the Inter-institutional Network for Food, Agriculture, and Sustainability (INFAS). The day concluded with remarks from Scott Marlow on how the group's work matters to policy makers and a discussion of AOTM communication and outreach strategies.

The second day began with a presentation by Melissa Bailey from USDA-AMS on the agency's work on supply chains. This was followed by an update from Nichelle Harriot from NSAC on their Farm Bill platform and cultivating research advocates. Andy Green from USDA outlined his team's work on competition and fairness. The meeting ended with a state policy update from Clancy and Gwin.

2021 publications:

Jablonski, Hadrach, and Bauman. The role of federal crop insurance for farms and ranches that sell through local food markets. *Agricultural Finance Review*.

Peterson et al. The value of values-based supply chains: farmer perspective. *Agriculture and Human Values*.

## **NC 1198 (2022–2026) Enhancing the Resilience of Agriculture and Food of the Middle**

2022

Lindsey Day Farnsworth (Chair), 29 attendees. Agenda items for the morning included an introduction to new projects, updates on other AOTM research

involving collaborations among members, and a discussion of research approaches to the intersection of climate change and food systems led by Michelle Miller, including how to advance this knowledge and understanding to a deeper level. Many people reported working on climate-related projects and raised concerns that this work should be done carefully.

Most of the afternoon was spent in breakout groups discussing the first two new proposal objectives. Members shared their thoughts on risk definitions applied to governance structures (Objective 1), the transdisciplinary skills of AOTM members that can be applied to climate adaptation and mitigation, and the barriers to engaging with social equity in agricultural research (Objective 2). The day concluded with a discussion led by Sarah Lloyd on the new USDA Regional Food Business Centers.

The second day was devoted to Objective 3. The first item was a report from Nick Rossi of NSAC on their activities around many titles of the 2023 Farm Bill, including enhancing permanent baseline funding for food and agriculture research and the Agricultural Research Service (ARS), AFRI, and NIFA programs. The group then shared other research collaborations, including the Cultivating Research Advocates webinars with NSAC, and interactions with INFAS policy work.

In the next policy segment, 10 members described the federal or state policy issues on which they were engaged, from advocacy for better small and mid-sized farm services and resources to a provision of the Farm Bill for child-care benefits for farmers and farm workers. They also shared how they are communicating their research findings to target policy audiences, such as providing input directly to USDA and other agencies, writing op-eds in state newspapers, speaking at Senate Agricultural Committee briefings, engaging state legislators in events, and sponsoring a convening of the USDA's Office of the Chief Economist to discuss policy issues with researchers from different disciplines.

The next agenda item was a discussion of the policy skills on which the group wants to work over the next year. Some activities suggested were training on how to present research findings in a compelling way, how to draft policy asks and build coalitions, and how to write policy briefs and press releases. Members proposed a webinar on data visualization and one on how to communicate research findings. Phil Howard and Lloyd volunteered to present these.

The policy segment ended with a discussion of how the group might capture the many discussions on AOTM policy that have taken place at the annual meetings.

Suggestions were a policy page on the website, preparing a summary of key points and learnings from the meeting notes, tracking outputs and outcomes of AOTM's policy efforts, and compiling archives of the meeting notes and highlights.

The last agenda item was a set of breakout groups to discuss redefining AOTM's core concepts and issues, identifying key policy issues and opportunities, improving the website, and organizing AOTM webinars.

2022 publication:

Cunningham et al. Beyond procurement: Anchor institutions and adaptations for resilience. *Journal of Agriculture, Food Systems, and Community Development*.

2023

Lauren Gwin (Chair), 17 attendees, including 12 in-person and five remotely. The agenda item for the morning was a discussion of projects related to the objectives. Group members shared individual and multi-state projects addressing aspects of Objective 1 (examining the governance structures of VBSCs and constraints on their ability to maintain values along the supply chain). These projects included studies of data-use agreements across supply chains; supply chain issues in cider network capacities; marketing of meat by producers and processors; the impacts of New York City procurement on its extensive region; how to measure "community wealth"; relationships in Kernza supply chains; external constraints on farmers, packers, and stockyards supply chains; assessments of farmers in agricultural markets; pre-harvest food safety regulations; a move toward more shared supply chain vocabulary across Extension supply chains and buyers; and logistics optimization of regional foods in rural areas.

Objective 2 is an examination of systemic disruptions on mid-scale supply chain resiliency, social equity, and the environment. These projects included a proposal to work with Tribal nations to rebuild food systems and studies of labor issues at different scales of meat processing, adapting to pandemic stress on organic farms, and an AMS resilience playbook to use in communities.

Objective 3, building the policy capacity of project members, is addressed through three different activities:

- Assessing the impact of public institutions on market structures, supply chains, resilience, and sustainability. This activity included a project to develop an AMS-supported food flow analysis and "Smart Foodsheds," an

Intelligent Cyberinfrastructure with Computational Learning in the Environment (ICICLE) project funded by the National Science Foundation.

- Supporting Food Policy Councils and coalitions at all scales in their efforts to create and sustain rural–urban connections. There were no current projects reported for this activity.
- Building the capacity of project members to communicate their research findings to public policy actors. These projects were described on the second day of the meeting (see below).

Following the discussion of the objectives, members reported on research that did not fit any of the three objectives, including expanding the courses and certificates that are available for training Extension agents on food systems, as well as supply chains, farm succession and transfer, land access, land investment, and city/region and agroecology projects.

The afternoon started with small group sessions on research to assist Extension efforts, including value chain coordination training; agroecology and soil health in relation to resilience and risks; and bringing systems thinking into transdisciplinary research. These sessions concluded by listing possible topics that might be missing from Objective 1. The list included renegotiating trade-offs within food systems; more attention to farmland, land tenure, and farmland preservation; marketing contracts; financing; low-income workers in food systems; and federal health care.

The day ended with a discussion led by Kovacs on the Resilient Food Systems Infrastructure and Regional Food Business Centers programs at AMS.

The second day began with a discussion of how members communicate their findings related to, or informed by, federal policy. Members reported (1) working with the Packers and Stockyards Agency to provide research for rulemaking; (2) preparing an inventory of risk management to support grass-based production systems; (3) studying food safety issues in the National Organic Program; (4) educating the Transportation Economics Division of AMS on logistics issues; (5) accessing, with difficulty, ERS data for AOTM research; (6) serving on the USDA Advisory Committee for federal data collection; (7) co-sponsoring a conference on economic policy attended by U.S. senators; and (8) working with nonprofits to identify those interested in using research results and talking with USDA personnel about what policy changes are feasible.

During this conversation, several skill share items were highlighted. First, 1198 members were encouraged to reach out to colleagues for guidance on specific

opportunities for policy outreach. The group discussed how to find federal and state policy liaisons at universities, how research findings are delivered to policy makers (e.g., is gray literature acceptable?), how to get published in *The Conversation*, metrics for measuring community engagement, and how to work effectively with policy advocacy organizations.

The group then shared state policy updates, including the following:

- In Maine, conducting research to support a plan for administering a PFAS (per- and polyfluoroalkyl substances) fund for farmers
- In California, producing a policy brief on how patterns of farmland investment can exploit the state's Sustainable Groundwater Act
- Also in California, building a state land-use database
- In Oregon, working with the Center for Food Safety Network to share bill/policy priorities to make connections across the state and in the Legislature
- In Missouri, serving as a member of the state food security task force
- In Wisconsin, helping to develop farmer-led watershed councils
- Also in Wisconsin, working with Extension and food banks to co-produce a report on access to fresh produce by small independent grocers, based on research that the traditional distribution sector was not moving into rural counties; sharing this report with the Departments of Transportation and Agriculture
- In Rhode Island, engaging with the state Food Policy Council to develop a 10-year food plan
- In Minnesota, completing a three-year statewide partnership on the Federal-State Marketing Improvement Program with data-informed priorities
- Also in Minnesota, developing a forum for state regulators and a local food advisory council to work out new policies
- In Washington state, serving as a member of the state's food policy forum and developing a program with the state's Regional Markets Program to allow processors and regulators to talk to each other
- In Colorado, getting involved with many bills currently in play.

The final presentation was given by Adam Wilke, the USDA-NIFA program leader for AOTM. He spoke about NIFA's three-year priorities, conference proposals, and the next RFA solicitations.

The meeting concluded with plans for the annual report, future chairs, a future meeting proposal, and AOTM's presence at the 2024 AFHVS conference.

2023 publication:

Peterson et al. Impact of COVID-19 on U.S. agrifood supply chain businesses: Regional survey results. *PLOS ONE*.

2024

Michelle Miller (Chair), 28 attendees, including 24 in-person and four remotely. Acknowledgment was made of four deaths of AOTM colleagues in the preceding year: Steve Stevenson, Bill Heffernan, Christine Porter, and Don Wyse.

Each member then gave a brief overview of their present work. These reports spanned a variety of topics, such as the pros and cons of anaerobic digesters on small and mid-sized farms and ranches, the Local Food Purchase Assistance Cooperative Agreement Program, and issues around wholesalers and their evaluation.

The afternoon session started with a presentation by Andrew Stevens on his research on diversification and resilience. This engendered a long discussion on different definitions of resilience, how to do research under crisis circumstances, capitals, and conceptual frameworks.

In a session on research projects that fall under AOTM objectives, Aiden Irish spoke about looking at regional approaches to food systems governance, Peterson described her group's research on social network analyses, and Jill Clark talked about regional food policy councils. With regard to Objective 2 (integrating the effects of systems disruptions on VBSCs), Lloyd led a discussion on lessons in community engagement. Peterson, Miller, and Patrick gave a quick report on their successes in seeking funding from different sources for collaborations.

In the policy segment, members shared 1) current work informed by or connected to federal policy, 2) how they are communicating research findings to policy makers, and 3) state and local policy related to NC 1198 objectives.

The second day commenced with a report from Wilke of NIFA. He spoke about capacity funding, which is 50% of the NIFA portfolio and not peer reviewed; decreasing allocations to NIFA funding; the underuse of conference grants; the importance of reaching out to Program Officers with questions and suggestions; stabilizing Smith-Lever formula funds for Extension; and competitive grants.

The next item was updates and discussion of the Regional Food Systems Infrastructure Grants. Miller and Lloyd described their frustration with the rules

and delayed feedback from AMS on their multiple proposals. In Missouri, the state legislature has so far only approved \$2 million of the \$6 million allocated—and researchers are not allowed to collect demographic data, so they had to use another designation, “distressed county.” Subsequent discussion addressed measuring the impact of the programs and the lack of training of USDA personnel on many of the topics being addressed by the research proposals.

The group then turned to reports on the Regional Food Business Centers projects. Some are further along than others. In some regions, people are confused about how to organize, what AMS offers in terms of grant disbursements, and what the reporting requirements are. Several groups are conducting Social Network Analyses to follow the impacts of the developing Centers. The discussion ended with a suggestion to look ahead to the situation after the election and the possible trajectory of the projects.

The final items were a discussion of membership and participation in AOTM, which led to the formation of a membership committee; the requirements and compilation process for the NC 1198 year-end report to USDA; and the development of a letter to the incoming administration at USDA bringing high-priority agriculture and food issues that offer support to AOTM to their attention.

2024 publications:

Delheime, M. Research supporting midsize producers. USDA/NIFA Multistate Research Fund website.

Miller and Konar. U.S. food flows: a cold chain network analysis of freight movements to inform local and regional food issues. USDA/AMS. Transport Service Division.

Stevens and Teal. Diversification and resilience of firms in the agri-food supply chains. *American Journal of Agricultural Economics*.

## **Objectives Over Time**

As described in the synopses, every five years a decision was made to renew the project following a USDA NIFA protocol. One of the many steps in the process is the requirement to propose new objectives or maintain present ones.

## 2006–2012

1. Estimate and evaluate the consumer demand for differentiated agricultural products that can most effectively be provided by values-based food supply chains.
2. Conduct research to identify biological production approaches and assess their profitability in alternative farming/ranching systems that produce differentiated food, fiber, and other products suited for marketing through mid-tier, values-based business approaches.
3. Identify and conduct research to evaluate the functioning of alternative marketing systems that link the producers with consumers.
4. Identify and conduct research to evaluate alternative public policies that will have an impact on Objectives 1–3.

The two objectives in the first iteration were in some ways an extension of the research that members had done in the earlier multi-state project on local food systems. The work on biological production approaches was in part a reflection of the types of farms envisioned as members of American Family Farms, the new business and marketing structure. The policy objective was met through a component of the case studies and policy briefings at each annual meeting.

## 2012-2017

1. Organization/Ownership: Determine key factors that influence patterns of ownership, control, and business relationships with VBSCs and investigate how all three influence the economic performance and viability of participating farms and ranches and other chain partners.
2. Social: Identify the community-related goals and needs of VBSCs and assess the impact these chains will have on the communities in which they operate. Examine the labor arrangements throughout these chains.
3. Landscape/Environmental: Identify the environmental and natural resource-related goals of VBSCs and assess the impact these chains have on the landscapes on which they operate.
4. Policy: Determine how existing policies in a number of areas influence the performance of VBSCs and how policies and programs could be redesigned to enhance the future performance of these chains.

This second iteration followed the completion of the first case studies and other salient research results that had brought to the fore the importance of studying more VBSCs to find out how their ownership and management components contributed to their success. The impacts of the chains on their communities and landscapes were also raised up as important research questions.

## 2017-2022

1. Economic. Investigate key factors that influence economic performance and viability of mid-scale farms/ranches and their supply-chain partners.
2. Social. Identify and assess the possibilities of mid-scale supply chains to contribute to community goals and needs.
3. Environmental. Identify and assess the environmental and natural resource contributions of mid-scale supply chains.
4. Governance. Examine and assess governance structure and mechanisms of mid-scale supply chains and their role in mediating, communicating, and implementing values around food quality, economic performance, social equity, and environmental sustainability.
5. Policy. Build the capacity of project members to investigate, address, and communicate policy issues surrounding mid-scale supply chains.

Ten years into the project, the social and environmental objectives did not change. An explicit charge to study the factors influencing the economic performance and viability of producers and their supply chains became the first objective. Then, based on members' knowledge and experience of governance, issues in supply chains became the focus of a new objective. Building the capacity of members to include policy issues and outreach in their grant proposals became a new focus.

## 2022-2027

1. Examine the governance structures of values-based supply chains and the internal and external constraints on their ability to preserve values along the supply chain.
2. Investigate the effects of systemic disruptions (COVID, climate change, natural disasters) on mid-scale food supply chain resilience, including on social equity (marginalized populations, racial equity) and environmental justice.
3. Build the capacity of project members to collaboratively investigate, address, and communicate policy issues surrounding mid-scale producers and supply chains, considering commodity and information flows, and shared risks and benefits.

As the most recent five-year phase of AOTM began, the COVID-19 pandemic had already engaged many members. The investigation of systemic disruptions became an obvious objective. The governance objective shifted emphasis to focus on constraints and on the ability to maintain value relationships along the nodes of the chains.

## Accomplishments

The AOTM committee was always aware of what one chair called “the public face of the project” and how to expand it. The group often discussed strategies for communicating more widely and effectively about AOTM research and activities and their policy implications to varied professional audiences and partner organizations.

The protocol required by NIFA in the project’s annual Accomplishments Report includes four categories (outcomes and impacts are separated here) :

1. Outputs: defined products (tangible or intangible) delivered by a research project. Over 20+ years, AOTM members have produced hundreds of AOTM and “AOTM-adjacent” peer-and non-peer-reviewed publications; many books and book chapters edited by members and others; thousands of presentations at conferences and workshops attended or organized by members, symposia, webinars, lectures, and other invited presentations; and Extension and other education materials such as state and county reports, fact sheets, online resources, toolkits, and data utilization resources.
2. Short-term outcomes: the measurable benefits of the research outputs as experienced by those who receive them. Several examples are the changes, in the early days of the project, in the language used in several USDA/NIFA Requests for Proposals; the case study community of practice that brought together researchers and VBSC business owners; sharing with Congress the estimated COVID-related losses for producers selling through local markets; providing information to Congress and the USDA Risk Management Agency to help them determine if/how to create new insurance products for midsize producers; and inclusion in the Farm Bill of a child-care provision for farmers.
3. Milestones: time-linked accomplishments that need to be completed before subsequent activities can begin. An example is the research on the nature and operations of specialty food businesses. The findings led to direct technical assistance and a set of briefs. Interpretation by chairs regarding this category was not always consistent. Some described the receipt of grant proposals and the movement of projects through multiple years as milestones.

4. Outreach: products describing the concepts and work of AOTM. These include the website, which has been enlarged and refined over the course of the project; two encyclopedia entries; teaching and training materials such as course syllabi, lesson plans, curricula, pedagogical methods, and field experiences; policy outreach to Congressional and agency staff and state and county legislators; and a set of four AOTM sessions at the 2024 AFHVS Conference on 1) governance and planning, 2) resilience and planning during COVID, 3) connecting research and policy to support AOTM, and 4) AOTM as praxis.
  
5. Impacts: showing the ways in which the economic, social, health, or environmental consequences derived from the projects would benefit the end users. The members acknowledge that most AOTM impacts will be realized in the future because of the nature of interdisciplinary research, policy circumstances, and the time it takes to adopt new models and implement them. This is one of the reasons that NIFA's requirements that outcomes be measurable and evaluations be quantitative are problematic to researchers. Yet the entire oeuvre of AOTM activity is always informing and affecting decisions from the farm level to Federal policy. Examples of impacts include a national database of VBSCs, technical assistance to many farmers and others, the child care provision mentioned above, and the input from many members into the development of the Regional Food Business Centers RFAs and proposals. An internal impact worth mentioning is the significant increase over the years in the capacity and activities of members to address policy issues in projects and translating and extending their findings to the people, organizations, and agencies who will find them helpful. This work is fulfilling the policy directive of the original developers of AOTM.

## **A Brief Summary of the Project's Trajectory**

One of the three goals of the AOTM founders was to develop a cadre of researchers and food systems practitioners with expertise in food systems analysis and reform. The goal has been accomplished through the creation of a network of scientists from a range of disciplines who have produced the large body of work described throughout this report.

The membership has changed and grown over 20+ years, from 35 members and what Steve Stevenson called "allies" in 2009, to 50 active members and more than 30 other "allies" in 2024. The members cross geographic boundaries: participants

have come from 32 states and 27 land-grant and non-land-grant universities, along with scientists from nonprofit organizations and USDA agencies. They also represent at least 11 different disciplines: agricultural economics, agronomy, anthropology, environmental science, food systems, nutrition, philosophy, political science, rural sociology, soil science, and sociology.

Collaboration is a keystone of USDA/NIFA's multi-state operation and a vital component of AOTM philosophy and research endeavors. While building a vibrant interdisciplinary community of scholars from diverse states, the group has collaborated on many funded projects; informed each other's research topics, hypotheses, and study designs; and shared interview guides, surveys, and other research instruments. It has demonstrated that it is, as one of the chairs put it, "more than the sum of its parts."

At its inception, the focus of the committee was on a disconcerting structural change in U.S. agriculture: the decline of mid-scale family farms and associated impacts on the well-being of rural communities, the economy, and the environment. Over time, members developed a deep expertise in the fields of values-based supply chains and strategic partnerships and expanded to examine other issues affecting the resilience, diversity, and competitiveness of U.S. food systems.

As the committee continues to evolve, it shows every sign that its members' research findings and policy efforts will continue to make important contributions to the applied food and agriculture research literature, and that many people and institutions will be the beneficiaries of this work..

## **Sources**

This history has been compiled from many sources. The most comprehensive is the agendas and minutes from the annual meetings of the committee. The minutes varied in length and detail and expanded over time. A second source is the yearly Multistate Research Activity Accomplishments Report for the USDA's National Information Management and Support System(NIMSS) repository. Each report summarizes the minutes of that year's meeting and lists activities, outputs, impacts, and publications. For several years, this report was not submitted or could not be located. For some years, an annual report to USDA submitted by a group member at a participating university provided useful information.

Other sources are: (1) items on the AOTM website; (2) a mini-history by Mary Hendrickson and a reflection on AOTM by Gail Feenstra prepared in 2022; (3) books, book chapters, reports, and other publications authored by AOTM members; (4) historical documents describing pre-AOTM multi-state projects; (5) internal discussion among group members; and (6) guidance documents from USDA.

## **Acknowledgments**

Preparing this history was possible only because of the work of many note-takers and report-writers who diligently recorded the proceedings and activities of the AOTM committee. They labored as scribes along with the hard-working Chairs to capture the immense amount of material generated each year by the project (and to meet USDA deadlines).

Thanks to all who sent documents I didn't have, and to Heather Sisan for her assistance with editing and formatting..

I also wish to memorialize Fred Kirschenmann, Steve Stevenson, Tom Lyson and Fred Buttel who contributed so much to the conceptualization and organization of AOTM. They are missed.