PRESIDENT'S FORUM

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Strategic Planning in the American Society of Agronomy

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I appreciate this opportunity to communicate, on behalf of the American Society of Agronomy (ASA), with our colleagues in the American Phytopathological Society. Your inclusion of the President's Forum in the program of your annual meetings is a valuable innovation. Hopefully, it will open doors to new levels of communication and cooperation among agricultural professional societies in the future.

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The Executive Committee of the ASA is made up of the president-elects, presidents, and past presidents of the society and its sister societies, the Soil Science Society of America (SSSA), and the Crop Science Society of America (CSSA). In addition to sponsoring some separate activities, the ASA is the umbrella organization for the three societies. The two executive vice-presidents of the ASA, one for external affairs and one for operations and management, are also members of the Executive Committee.

It has been customary for the Executive Committee to engage in some informal, long-range planning at the beginning of each Executive Committee meeting. About a year ago the Executive Committee launched a somewhat more formal strategic planning effort, with the goal of developing a strategic plan for the Society.

Strategic planning is a routine activity in most private firms. CSSA Past-President Don Duvick, who is also Vice-President of Research of Pioneer Hybrids, International, lists important strategic planning issues as follows: What is our business? Who are our clients? What are the forces of change in our business? What do we have in place to cope with these forces? What should we put in place to cope with these forces?

The process of strategic planning is a subject of study in business schools. There is a body of literature on the topic. The modern concept of strategic planning focuses on change. Economic, social, political, and, especially, technological changes are occurring more rapidly, and the future is becoming less predictable. Planners need to identify the forces of change, describe a number of alternative scenarios, lay plans for dealing with them, and, in general, make their organizations more flexible, adaptable, and responsive to change.

This approach, described by Waterman (3) as "informed opportunism," recognizes that individuals and groups should have long-range goals but that the path to achieving them will not always be a straight line. Of course, when we identify an undesirable condition or trend, we should try to change it. In fact, our greatest responsibility as professionals is to be the architects of change so that our clients and constituents will not be its victims.

The ASA strategic plan will be maintained as a working document to be reviewed, revised, refined, and updated at subsequent meetings of the Executive Committee. The plan includes an introduction, some working definitions, and a background description of conditions and trends within the environment in which the ASA operates. Other essential components of the strategic plan are the mission statement and the lists of objectives and associated strategies of the ASA.

We see strategic planning as a mechanism to organize policy discussions and the strategic plan as a tool to summarize current plans and provide continuity to the planning process as leadership changes. We also hope the strategic plan will help foster communication among ASA officers, board members, committee chairmen, and members; solicit input from members, committees, and boards; guide ongoing management activities by headquarters staff; and provide a general conceptual framework for decision-making within the society. Experience with strategic planning indicates that the resulting plans are not as important as the communication fostered by the planning process.

The initial version of the ASA strategic plan has not been evaluated by the membership. The Executive Committee spends considerable time and effort in refining the wording of various statements in the plan. While this process is difficult, we regard it as very important in making the plan conceptually sound, concise, clear, and flexible.

The plan will be extensively reviewed and refined by member groups in the future. Even in its present form, however, I think it provides a good mechanism for me to communicate to you many issues of concern to ASA, some of which I believe are also of concern to The American Phytopathological Society. Hopefully, there are ways that we can work together to deal with these issues.

Background

There are many trends and forces in the world that are changing the environment in which the ASA and other professional agricultural societies must operate. ASA officers regard some of these changes as positive and others as negative. In general, our policies must be designed to accommodate to the conditions we cannot change and to influence other conditions for the good of our membership and for the general public.

Some of the following predictions and statements of trends and conditions were derived from ASA Executive Committee discussions. Others came from other agricultural strategic

planning efforts in which I have participated. It will be important in our future planning efforts to monitor and continually reassess these trends. We need to know if, in fact, they are occurring and if we are responding appropriately to them.

Trends and conditions in agriculture. Of fundamental importance is the fact that population and associated food, feed, fuel, fiber, and chemical feedstock needs continue to increase. Decreasing political tensions in the world will foster more rapid economic development and expand international markets for agricultural products. In spite of this, world agricultural production capacity will probably exceed effective demand for agricultural products for several years. This will result in strong competition for agricultural markets, particularly commodity markets.

A progressively smaller proportion of the total population will be directly involved in producing agricultural products. Fewer young people will have natural ties to production agriculture. Fewer young people will be naturally inclined to enroll in agriculture courses and programs, because these tend to be identified with production agriculture. Among other consequences of this trend, fewer policy makers will have training and experience in production agriculture.

As the general population becomes further removed from the farm, farming will be regarded more as a business and less as a way of life. Because of their need to reduce costs and desire to participate in the global economy, nations will be less favorably inclined to protect and subsidize their agriculture. The political influence of farmers will decrease throughout the world.

Taken as a whole, however, more people will become professionally involved with agriculture. The infrastructure of agriculture, including input industries; processing, distribution, and marketing industries; financial institutions; and private and public groups performing agriculture-related research, education, and regulatory activities, will increase in size in the world as international markets expand. Private agricultural firms will become more international in scope and will face increasing competition for markets.

Public awareness of and concern about environmental quality, soil conservation, food safety, nutrition, and agricultural sustainability issues will continue to increase. Resulting policies will restrict traditional management options available to agricultural producers. Demands for information and for research and educational programs on these topics will increase. A number of new market opportunities will be created by these concerns.

Activity in molecular biology and other sciences basic to agriculture and in new agricultural product development will continue to grow, fueled by increased public interest and increased investments of public and private funds. Nations that most rapidly and effectively implement new productivity-enhancing, costcutting, quality-improving agricultural technology will capture a disproportionate share of the benefits of worldwide investments in basic and developmental research. Increasingly, such technology will need to be not only economically advantageous, but also socially, politically, and environmentally acceptable.

Agriculture and other industries will become more technologically sophisticated. While there is currently strong interest in "low-input, sustainable" agriculture, it will become evident that improved technology and management will be necessary to achieve the goal of "low-input, sustainable" agriculture that is also economically viable. In my opinion, the oft-expressed desire for a less capital-intensive production agriculture will not be realized, because the alternative, ie., laborintensive agriculture, will not be acceptable to enough producers or consumers of agricultural products. Competition will drive agriculture toward more management-intensive, capital-efficient systems, however.

The trend toward improved technology will be particularly evident in the area of communications. Communication via computer network will grow until almost all professional agriculturists will need to be computer literate and will need access to computer networks. Electronic publishing is increasing and will continue to increase until it is the core of publishing and the

generation of hard copies is a by-product. Professional journals are becoming available in electronic format. This trend will continue until almost all professional literature will have to be made available in electronic format if it is to be widely used.

Trends and conditions within the field of agronomy. Trends in the field of agronomy parallel and reflect some of the trends in agriculture as a whole. Fewer agronomists come from a farm background. Fewer will have grown up in rural areas. A progressively smaller proportion of U.S. agronomists focus on production issues and problems. Larger numbers of professionals in agronomy and related fields are focusing on agronomy-related environmental, conservation, food safety, nutrition, and agricultural sustainability issues in their daily activities.

Public institutions and agencies with agronomy programs continue to shift emphasis toward basic research and biotechnology. Fewer people are being trained and are gaining experience in field experimentation and other aspects of traditional agronomy. A smaller percentage of agronomists will be generalists. Among U.S. academics there is a trend toward more emphasis on knowledge generation within specialties and less on addressing practical, site- and situation-specific issues and problems. Other nations are rapidly building their capacity for agronomic research, teaching, and extension. A larger proportion of the U.S. agronomy graduate student population will be foreign nationals.

Enrollment of undergraduate students in agronomy is decreasing in U.S. institutions. The supply of trained agriculturalists is projected by the USDA to be 10% less than the demand for the next several years (1). However, the USDA predicts that agricultural production specialists, many of whom will be trained in agronomy, will be in oversupply by 12–30%. In my opinion, the need for production specialists could increase dramatically if U.S. agricultural policy shifts toward achieving agriculture competitiveness and technological leadership.

Trends and conditions within the ASA. Total ASA membership increased steadily from 7,865 in 1970 to 12,781 in 1986. It has decreased about 5% in the last two years. Active membership decreased the last 2 years and graduate student membership decreased the last 3 years. Foreign membership continues to increase.

The costs of publishing and distributing journals, which represent about a third of total operating costs of the ASA, are increasing, but we are delivering more and better quality publications. Personnel costs, which also represent a third of total costs, are increasing, but we have assembled a very productive and talented headquarters staff. Costs of travel and hotel accommodations associated with meetings continue to increase but do not seem to be a major deterrent to attendance.

The profile of potential ASA members will probably continue to change. The percentage of members who belong to various minorities will continue to increase. In the future, a larger percentage of potential members will probably be practitioners of agronomy rather than scientists. These will include farm and agribusiness managers and sales people, as well as people who work in various agencies involved in conservation, environmental, and nutritional activities. Academics working in traditional agricultural institutions will make up a lower percentage of professional agronomists. A lower percentage of potential members will have been trained in traditional agricultural institutions.

Objectives of The American Society of Agronomy

The general objectives of the ASA are simple in concept but complex in implementation. They are to: 1) improve the service of ASA to its members; 2) improve the service of ASA to the general public; 3) increase membership; and 4) increase efficiency of operations.

In formulating these objectives, we tried to make them specific enough so that we can identify specific strategies to accomplish them. We selected objectives thought to be achievable, and we prioritized them. Before they will be fully useful as components of our strategic plan, we must identify quantitative measures of improved service and efficiency, so that we can assess our progress in achieving the objectives.

Strategies of The American Society of Agronomy

We have identified a number of strategies that will be employed to achieve each of ASA's objectives. As I describe them, you will note that many strategies address more than one objective. I listed the strategies with the objectives to which they are most closely related.

Strategies to Improve Service to Members

We believe that strengthening the regional branches of the ASA will be an important service to members. We plan to provide more organizational support for the regional branches and to help them identify the unique roles they can play in serving members. They are trying to enrich regional meetings and focus them on topics and programs most likely to increase participation.

There are opportunities for our regional branches to cooperate with regional branches of other professional societies to improve their service to members. The participation of the Southern Regional Branch of ASA in the annual meeting of the Southern Association of Agricultural Scientists is an excellent example of such cooperation.

As a further effort to improve our service to members, we hope to foster computer networking of the members of the ASA. We are exploring ways to provide electronic messaging (E-mail), conferencing, and bulletin board service to our members. We hope to do this in collaboration with other societies, networking services, and telecommunication groups, so as to gain the necessary economies of scale. We would like to provide some databases to our membership in electronic format. We continue to computerize the publishing process and anticipate that eventually our journals will be made available in electronic format.

There are other obvious strategies to improve service to members. We will try to improve our communications by enriching our communication mechanisms, including our monthly newsletter, Agronomy News. We have taken steps to keep the membership better informed on current issues.

We emphasize maintaining and improving quality of meetings and publications. We have an ongoing effort to improve the publication process, including shortening the time required to review, edit, and publish manuscripts. We make a great effort to select the most effective reviewers and editors and try hard to set high standards of excellence for the journals.

Strategies to Improve Service to the General Public

One of the ways in which the ASA can improve its service to the general public is by establishing better communication with government agencies. The ASA membership is a rich source of expertise for support of legislative and regulatory groups attempting to solve the difficult economic, environmental, and natural resource issues that impact agriculture and agronomy. We hope to use our congressional fellows to coordinate our efforts to provide this legislative and regulatory support.

Three years ago, we launched the congressional fellow program. Each year we select a new congressional fellow, each of whom serves a 15-month term overlapping with those who precede and follow so as to provide continuity. So far our congressional fellows have been attached to the U.S. House of Representatives Committee on Agriculture, Subcommittee on Department Operations, Research, and Foreign Agriculture (DORFA), through which all agricultural research-related House legislative proposals flow. By providing staff support, we greatly increased the staff available to the committee, which has only one permanent staff person. The result has been beneficial to the Fellows, the ASA, and the Congress.

Our congressional fellows do not function as lobbyists but help

the congressional committees identify expertise needed to support the legislative processes. The congressional fellows communicate to us the important issues and concerns of the Congress, which we publish in Agronomy News and in other publications. In an article in the Journal of Production Agriculture, Terry Nipp, our second Fellow, provides disturbing but very useful insights on the communication between agricultural interests and the legislative process (2).

In general, agricultural groups provide few congressional fellows or other interns to government, relative to other groups. As a group, we agriculturalists are failing to expose our young people to governmental processes and to build a cadre of agriculturalists who have experience in government. The ASA wishes to encourage and cooperate with other agricultural professional societies in supporting congressional and agency fellows and placing them in important positions.

In another effort to improve our service to the general public, we are trying to enhance the role of our fund-raising component, the Agronomic Science Foundation. We have employed a consultant to help us and have a long-range goal of having either a part- or full-time professional fund-raiser as an employee of the society. This might be a situation in which we could share resources with other professional societies. Among other goals of this fundraising effort, we hope to obtain funds to support three congressional fellows simultaneously.

We are concerned about some growing negative attitudes toward technology, particularly such important agronomic technologies as chemical fertilization and pest control. Of particular concern are the perceptions of some people that agricultural chemicals are always harmful and should be eliminated. We are also concerned about the attitude of some farmers and farm organizations that productivity research should be reduced or eliminated, because it can lead to excess production.

The perception by some scientists and administrators that applied agricultural research is mundane, unimportant, and of generally low quality has reduced support for agronomic research. We believe we can serve the public by fostering rational discourse about new technology and applied research. We are seeking mechanisms to educate people about agronomic technology and to encourage people to be open-minded toward potential impacts of new scientific and technological developments.

We intend to reevaluate criteria used in reviewing applied research reports and proposals, to foster improved techniques for applied research, and to provide awards and recognition for people engaged in applied research. We also wish to encourage increased support by state and federal agencies for applied research efforts.

Strategies to Increase Membership

Recognizing the likelihood that the general membership profile of the ASA will change, we wish to increase our service to those who represent growing components of the field of agronomy. To do this, we will try to improve our service to minorities and to practitioners of agronomy, that is, those who are engaged in agronomic pursuits other than research and extension. In order to increase membership, we have taken steps to diversify our publications and provide more membership options. One of the first steps in this direction was to broaden the subject matter content of the *Journal of Environmental Quality*.

ASA members now may select any of the society's peer-reviewed journals as their membership publication, rather than being required to select Agronomy Journal. While ASA publishes the Journal of Production Agriculture, it is a joint undertaking with several other agricultural professional societies, some of which offer it as a membership option. We invite The American Phytopathological Society to join us in this and other ventures. The Journal of Agronomic Education, for example, might serve as an outlet for a wide range of reports on innovative approaches to agricultural education.

As a further effort to broaden ASA's membership base, we hope to interface with other organizations in other ways. We are exploring the possibility of joint memberships and more joint programs, joint publications, and shared support capabilities. We have encouraged small organizations to integrate some of their programs into those of our annual meetings. Such arrangements enrich our program offerings and enable the small organizations to benefit from our economies of scale. As we move more toward electronic publishing, it may be possible and desirable for professional societies to share electronic publishing capabilities in order to achieve the necessary economies.

Further strategies to increase membership include creating more divisions within our societies, diversifying programs, and inviting more outside speakers to participate in our annual meetings. We also are adopting more flexible formats for our annual meeting sessions. Recognizing that the traditional paper sessions may not serve the needs of practitioners of agronomy, we are encouraging other approaches, including workshops, training sessions, software demonstrations, other demonstrations, open discussions, and posters. More than half of the papers presented at the 1988 annual meetings were in poster format.

To help enrich the annual meetings and gain broader perspectives on topics of interest to agronomists, we increased annual meeting registration fees to provide about \$30,000 per year for travel expenses of nonmembers invited to make presentations. These funds are provided to all divisions, in proportion to the number of papers given in that division the previous year.

We are encouraging nominating committees to involve more nontraditional members in leadership roles within the ASA. The effort to help regional branches increase participation is also an effort to increase our membership. We have discussed the possibility of developing specific marketing plans for memberships, publications, meetings, and databases.

Strategies to Increase Efficiency

I have been continually impressed with the efficiency of our headquarters operation. Our staff is very cost-conscious and does an excellent job of identifying cost-reduction opportunities. Of course, efficiency and cost-cutting must be ongoing concerns. In order to increase the efficiency of Society operations, we plan to focus on efficiency through increasing productivity rather than reducing services. To accomplish any of the other objectives identified, the Society must deliver value at reasonable cost.

We will try to gain economies of scale wherever possible. We will seek suggestions from our membership to accomplish the objective of increasing efficiency. In looking for opportunities to automate various Society operations, we see our efforts to market ASA memberships, publications, meetings, and databases as having potential for reducing costs per unit of output.

Summary

In describing the strategic plan of the ASA, I have outlined a number of ways in which we hope to cooperate with other societies, including The American Phytopathological Society, to accomplish common objectives. These include the possibilities of joint memberships, publications, meetings, and governmental liaison efforts, and shared support resources.

I appreciate the opportunity to share these ideas with you and encourage you to work with your agronomic colleagues to identify areas of common interest and to achieve goals of common benefit. Members of the American Phytopathological Society whose interests overlap with those of ASA members are invited to join both organizations. This will help to link, coordinate, and enhance the activities of these two great and valuable professional societies.

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