

THE FUTURE OF SOLANO COUNTY AGRICULTURE: WHAT COUNTY GOVERNMENT CAN DO

**Final Report and Recommendations
Solano Agricultural Futures Project**

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December 14, 2007



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ACKNOWLEDGEMENTS

At the top of the long list of persons who helped the UC Agricultural Issues Center to organize and complete the Solano Agricultural Futures Project are Jearl Howard, Solano Agricultural Commissioner, Carole Paterson, UC Cooperative Extension Director in Solano County and Mario Moratorio, CE farm advisor. They have been our principal links to county government and the broader local community, facilitating the progress of the project in numerous ways and at critical stages.

We thank Larry Clement, retired CE director, for his invaluable information and insights. We greatly benefited from the good advice and direction provided by Harry Englebright, retired county planner and current consultant to the general plan update process, and Birgitta Corsello Director of the Resource Management Department. Many other persons in county government contributed to the project, especially staff of the Resource Management Department, Agricultural Commissioner's office, and Assessor's office.

Our debt to Solano's agricultural community is enormous. Farmers, ranchers, agricultural processors, and persons in related fields were our principal sources of information. Just as important, they helped to keep the project grounded in the realities of local agriculture. Some of our information-collecting contacts with growers and others were in organized settings—including grower participation in the project's focus groups and in our written survey. Special thanks needs to be given to county's Agricultural Advisory Committee who met with us several times and reviewed numerous drafts of our reports.

We sincerely hope that this final report and the other products of the Solano Agricultural Futures Project justify the investment in time and information made by the many persons. The proof will be in the project's value as a resource for the future prosperity of Solano County agriculture.

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Agricultural activities remain an important segment of the Solano County economy. Farming and its allied industries contribute about 7 percent of the economic activity in the County and account for 3.9 percent of private sector employment.

Agriculture is even more important to the county's landscape and environment. The 362,000 acres of agricultural land cover 62 percent of all of Solano County, 81 percent of the unincorporated area. Virtually all of this land is privately owned — by farmers, ranchers and other landowners — and used for the production of numerous agricultural products. Agriculture contributes to the wellbeing of the county in four important ways—as an economic asset, the principal source of open space, the repository of multiple natural resources, and a valuable element of the local quality of life. Maintaining this land in agricultural production requires an economic environment in which individual producers can be profitable over time in their agricultural businesses.

Local agricultural prosperity is driven mostly by forces beyond the control of County government—global, national and regional markets for commodities, also technologies developed elsewhere, the demand for farmland for residential use, and such social patterns as intergenerational farm family relations.

Yet there is an important role for county government in facilitating agricultural viability.

At the request of Solano County government, the University of California is conducting the Solano Agricultural Futures project, an 18-month comprehensive examination of the county's farm and ranch sector. Our focus is on the problems and future prospects of the economic base of local agriculture, with particular attention to the production and marketing of specific commodities. Two UC programs are involved in the project—the Agricultural Issues Center at UC Davis and the Cooperative Extension office in Solano County.

The project began in April, 2006, and has four major phases:

Farmer and Rancher Perceptions and Projections—as captured in focus group interviews and individual questionnaires.

The Economic Roots of Solano County Agriculture—covering production patterns, commodity markets, land ownership and leasing arrangements, agricultural land markets, operator and farm family characteristics, and the sources of agricultural income.

Lessons from Other Areas—a comparison of agricultural patterns and county programs in a half dozen other California counties.

Final Report and Recommendations—economic options for Solano County agriculture focused on commodity markets, the services provided by agricultural land, and the role of county government.

The County has the capacity, in the exercise of its policy and regulatory powers, to make a difference in five areas:

- Presenting a positive image about the value and future of local agriculture, both to the general public and to the agricultural community.
- Protecting the agricultural land base in its land use policies and practices.
- Advancing value-added opportunities for agricultural operators by minimizing regulatory barriers.
- Helping operators to promote and market their commodities.
- Relying on pertinent information and expertise to make agriculture-related policies and decisions.

Covering all five of these areas, we present in this final report of the Solano Agriculture Futures project 10 separate recommendations for consideration by county government.

Recommendation One

Adopt throughout County government a more informed and proactive approach to agricultural issues in the work of the Board of Supervisors and county staff.

A widespread perception among Solano County agricultural producers is that county government is unsympathetic to the conditions of their industry and the contributions they make to the local economy, environment, and quality of life. Expressed during our focus groups (Report I, page 13), the belief is that since urban portions of the county are dominant in population and political power and that further urban growth is inevitable, county government leaders do not find it necessary to pay much attention to the particular needs and circumstances of agriculture. This is a matter both of image and policy.

Reversing this perception requires statements and actions that build confidence in the continuing importance and future of agriculture in Solano County. It will also be important for agricultural producers to increase their involvement in County policy creation and land use decisions. It will take time and work for the County and the agricultural community to learn to better work together.

It is important to note that county staff are most often knowledgeable and helpful when working with individual producers. Individual planners in Resource Management have been complimented by producers for their desire to help agriculture.

Recommendation Two

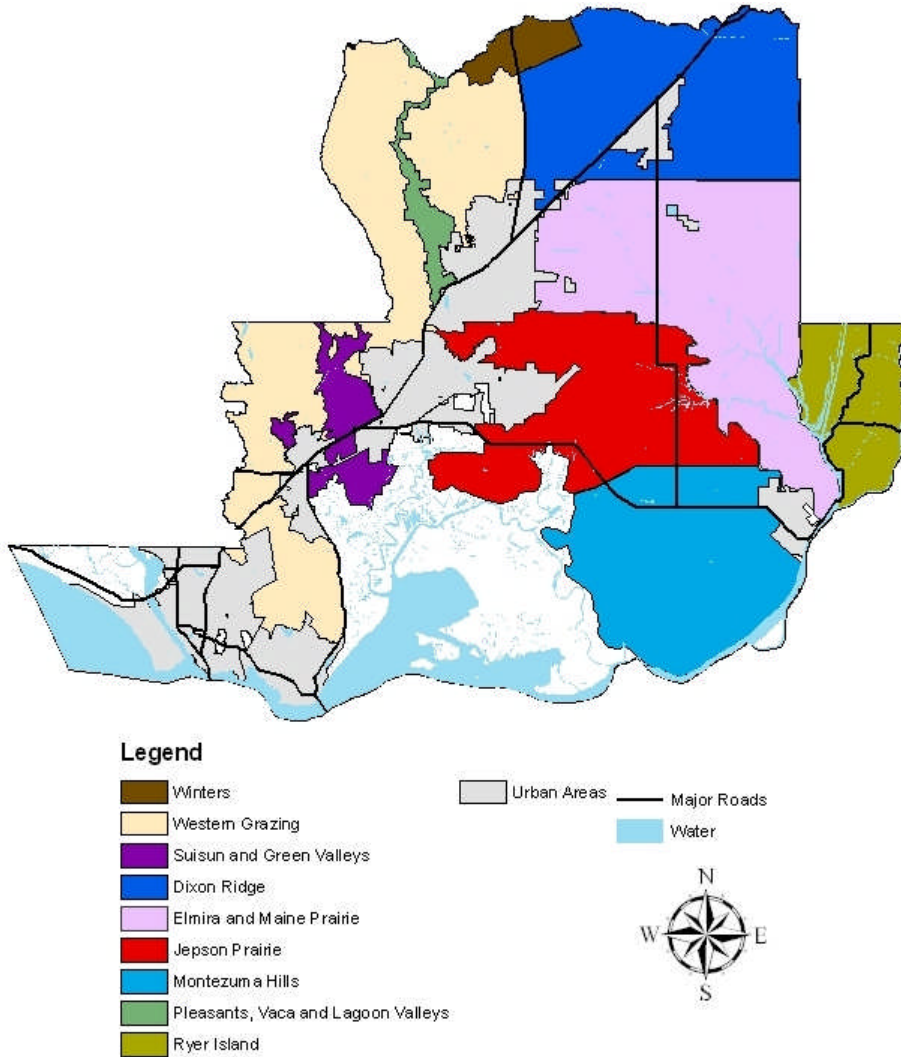
Establish, in the general plan, a regional basis for policies, land use designations and zoning code standards that accommodates important geographical differences in local agricultural conditions.

Solano's current general plan differentiates between Intensive Agriculture and Exclusive Agriculture based on soil quality and access to irrigation. This simple distinction does not do justice to the multiple local factors that influence agricultural production and prosperity.

Certainly, soil quality and good water supplies are useful proxies for agricultural viability and should be retained as key general plan and zoning criteria. But there are other important factors that differentiate among local agricultural systems—including production contracts, crop rotational patterns, and specific environmental conditions. In our Phase II report we used several map layers, produced by Geographical Information System (GIS) data and aided by advice from producers, to define nine agricultural regions. Specific commodity and geographical profiles are presented in Appendix 2 of the Phase II report.

We identify nine agricultural regions in Solano County. This scheme or a similar geographical classification can be used as the basis for modifying current agricultural zones to better reflect differences in local agricultural conditions. One possibility would be to apply different regional land use standards according to whether the land supports high value commodity production or is more important as an open space and aesthetic resource.

Map 1: Agricultural Regions of Solano County



Recommendation Three
Give priority in zoning and other farmland protection policies to the Dixon Ridge and Winters agricultural regions of Solano County.

Taken together, the Dixon Ridge and Winters regions account for 40 percent of the county’s total agricultural market value. More significantly for the future, they contain some of Solano’s best farming soils, most diverse cropping patterns, and large agricultural expanses —providing the greatest flexibility in the county for commodity choices and varied cultivation practices. At the same time, these two regions are square in the path of urban growth, more so than other agricultural areas of the county with the exception of the Suisun Valley. While the argument has been made that further residential and commercial development in the I80 corridor—which splits

the Dixon Ridge region— would be an efficient way of accommodating growth, it is likely that substantial additional urbanization would have major impacts on future agricultural production in these regions. The Dixon Ridge and Winters regions offer the greatest range of options for Solano County agriculture. Protecting these options for the future could be the most effective decision county government could make on behalf of agricultural sustainability.

Recommendation Four

Consider policies to support small scale and value added agricultural operations.

Profitable or potentially-profitable farms and related value-added enterprises on small parcels present different policy challenges than the large-scale agriculture typical of the Dixon Ridge and other regions. Zoning and other land use standards in regions like the Suisun Valley should address the unique production and marketing needs of small-scale growers and methods for buffering their operations from adjacent or nearby urban land uses. To this end, we suggest the creation of a Small Scale/Value Added Agricultural Committee, composed of successful small-scale producers, to advise county government on pertinent land use, permitting, and other issues. A sub-committee of the Agricultural Advisory Committee may be able to fill this role.

Recommendation Five

Minimize the negative impact of rural residential development in agriculturally zoned areas.

As our Phase II report suggests, agricultural land in Solano County is in great demand for rural homesites. Large minimum parcel sizes in agricultural zones may help to limit this demand and are a desirable standard. But large minimums by themselves do not substantially impede the purchase of agricultural land for residential purposes. The evidence lies in the escalation of local land prices in recent years beyond the level of affordability for producers seeking land for expansion and the conversion of prime farmland from crop production into rural residences. A common



development pattern in Solano County that illustrates this exposure of conflicting land uses is the positioning of rural residences in the middle of agricultural parcels, requiring long driveways to connect to local roads. (See image.)

Options for avoiding in the future such inefficiencies and negative impacts on agricultural production include size and locational controls on new residences, confining them to parcel edges and corners-- perhaps in cluster arrangements with homesites on adjacent parcels—and providing incentives for new purchasers to keep their land in agricultural production. More generally, county government can designate some agricultural regions of the county as more suitable for rural residences than more productive regions.

Recommendation Six

Commission a detailed study of County regulations and their implementation with the intent of minimizing the regulatory obstacles to value-added opportunities for local agriculture.

A significant issue relates to county policies and procedures for allowing, reviewing and permitting proposals for value-added enterprises on agriculture land—produce stands, processing facilities, ag tourism, etc. The key objective here is to balance the economic merits of such projects with the legitimate and mandated role of County government to protect the health, safety, orderly development, and other needs of the public. A complicating factor is that many of the county-administered regulations are imposed by state and federal requirements and hence leave little room for local discretion. Our Phase III report compares the regulatory processes of Solano and seven other northern California counties, but it is limited in scope and depth. We recommend that county government commission a detailed, expert examination of the local regulatory arena. As well as covering the substance of regulations and relevant county fees, the study should: (1) examine their administration, seeking ways to make the application and review process more efficient, economical, and less time-consuming; and (2) examine how the burdens of state- and federal-originated requirements can be modified in their local implementation.

Recommendation Seven

Protect and encourage agricultural processors through local and regional actions.

As illustrated in our Phase II report, Solano County agriculture is largely dependent on processors located elsewhere for the marketing and processing of commodities produced locally. The Campbell Soup and Superior Farms facilities in Dixon are major exceptions to this generalization. Respectively, they process tomatoes grown

in the Dixon Ridge area and sheep and lambs produced in the Montezuma Hills. The Heritage Dairy is another important outlet for local production, purchasing alfalfa, corn and other feed stuffs grown in the Elmira and Maine Prairie regions. Retaining these facilities and encouraging new processors, including wineries, to locate in Solano should be a top agricultural priority for the county.

At the same time, it makes sense also to follow a regional strategy for obtaining new processing facilities since the volume of most agricultural commodities grown in Solano is too small to justify a one-county approach. Solano County should work with neighboring counties, especially Yolo County to the northeast and perhaps Napa to the west and Sacramento or San Joaquin to the southeast, to maintain current and attract new processors to the area. A regionally focused initiative would reflect in particular the current organization of agriculture in the Winters and Dixon Ridge areas that includes many producers who farm in both Solano and Yolo Counties. Yolo and Solano have similar agricultural conditions and pressures, making a shared approach suitable for helping both counties to secure the production needed to maintain processing facilities.

Recommendation Eight

Consider county government funding and other support for promoting local agriculture.

Recognizing the contributions that local farms and ranches make to their economies, several other county governments directly assist the marketing efforts of producers by funding and directing promotion activities. Marin, San Joaquin, and Yolo Counties have such programs (Phase III Report). Such programs include the branding and advertising of local commodities, workshops for producers, supermarket campaigns, institutional purchases, websites, special events, and other activities. There are no such countywide activities in Solano currently, although Suisun Valley is represented by a promotion program supported by Fairfield and the Solano Irrigation District.

Recommendation Nine

Improve the information and expertise used by county government to evaluate and decide land use issues affecting local agriculture through better information and expertise.

The previous recommendation concerning a regional basis for agricultural land policies implies the diverse character of Solano County agriculture. The complexities of different production systems are only likely to increase in the future, as local agriculture continues to evolve because of changes in markets, technologies, and urban pressures. To help county government to cope with these conditions, we

suggest improvements in agriculture-related information and expertise, especially in these two areas:

- More systematic use of Geographical Information System (GIS)- based parcel level information on agricultural production, land use, and ownership, with coordination between Resource Management and the Agricultural Commissioner's office
- Enhanced county staff expertise on farmland and other agricultural issues. (See Recommendation Ten).

Recommendation Ten

Bring more agriculture-related expertise into County government.

Our Phase III report presents examples of how other California county governments have used agricultural expertise within their organizations. Solano County government can go a long way to support its agricultural economy by developing internally certain areas of expertise as a means of informing its own programs and assisting producers. Based on the experiences of other counties (notably Marin and San Luis Obispo) and ideas developed earlier in this project, consideration should be given to the employment of one or more agricultural specialists in the following areas:

- Initiate an economic development program for local agriculture, including the development of new markets, value-added options for individual farms and ranches, processing facilities for local products, and cooperation with other counties on regional facilities.
- Bring a more informed agricultural perspective to important land use decisions, especially the assessment of rural residential impacts on farm and ranch operations.
- Assist agricultural producers who propose value-added projects to negotiate the county's regulatory process.
- Promote and market local farm products through countywide branding, advertising, institutional sales, and other programs.

Appendix

Executive Summaries from Solano Agricultural Futures Project Reports

Report I of the Solano Agricultural Futures Project
**WHAT FARMERS AND RANCHERS SAY ABOUT
THE FUTURE OF SOLANO COUNTY
AGRICULTURE**

Executive Summary

As the first phase of the Solano Agriculture Futures project, this report summarizes the perceptions of local farmers and ranchers about the economic health of local agriculture. Seventy-five participants in nine focus group sessions, conducted in May-November, 2006, expressed these views:

Future Predictions

- The expressed forecasts were generally gloomy for the economic future of local agriculture, reflecting the steady countywide decline in recent decades in farm market value.
- Partially offsetting the overall negative assessment, however, were predictions of continuing and expanding pockets of relatively prosperity.
- A brighter future was projected for agriculture in the eastern regions of the county, characterized by large-scale farming, than in western regions where smaller farms are beset by intensive urbanization.
- In 20 years the county's top agricultural commodities in market value will be nursery products, cattle and hay.
- Despite poor economic returns, a significant number of Solano County operators will continue to farm for lifestyle and other intangible reasons, helped by off-farm income.
- The steady aging of the farm operator population and the reluctance of younger people to continue family operations are major impediments for local agriculture.

Improving Prospects

- As to economic strategies for individual growers, expansionist actions make sense for the relatively large farms in eastern areas, including integrating diverse functions, custom services, and maintaining good renter-landowner relations.
- For the smaller, niche-oriented farms in the west, pertinent strategies include downsizing under certain circumstances, risk and resource sharing, crop experimentation, and on-farm recreational experiences.
- County government should be more involved in assisting local agriculture, in such areas as road improvements, expanded sheriff patrols, product promotion, and education.

Problems

- The most emphasized economic obstacles facing local agriculture are government regulations, the loss of processing facilities, the limited influence of agriculture in county policy, the denial of new dairies, and high production costs.
- County government regulations that elicited the most negative comments were fees for permits, zoning restrictions on farm-related businesses, project review inconsistencies, and farm stand requirements.
- Other problem areas identified included property tax assessment practices, agricultural-residential conflicts, and the parcelization of farm parcels.

Report II Solano Agricultural Futures Project

The Economic Roots of Solano County Agriculture

Executive Summary

This report is an analysis of the diversity of Solano County agriculture, particularly its economic dimensions. This is the second written product of the Solano Agricultural Futures project conducted for county government by the Solano County Cooperative Extension office and the Agricultural Issues Center of the University of California. The first report in early 2007 summarized the findings of ten focus group conversations with Solano County farmers and ranchers. The third report in the series will compare the agricultural policies of Solano and eight other counties, while the fourth and final report will present a set of recommendations to the Board of Supervisors. Both are due later this year.

We focus here on the major factors that influence the economic well-being of the county's agricultural sector. This is much more than a static analysis of current conditions; Solano County agriculture is in continual flux, so the report looks at past and ongoing trends and future prospects. It also dips below the surface of aggregate countywide conditions to examine the detailed components of Solano County agriculture, particularly the individual crop and animal commodities that are grown here and the agricultural systems that characterize different regions of the county. Appendices I and II present detailed profiles of 17 different commodities and the nine agricultural regions of the county.

Describing the local agricultural economy, the key findings are:

- Agriculture is a major part of both the economy and landscape of Solano County. It generates about \$370 million (commodity sales and related activities) annually and occupies 362,000 acres, 62 percent of the county's total area.
- Most farm parcels (as identified by the Census of Agriculture) are primarily rural homesites, located on small acreages and producing commodities of little, if any, commercial value.
- Total sales of crop and animal commodities in the county has gradually declined in value in recent decades in inflation-adjusted terms.

- Countywide market values, however, mask individual commodity trends, which change independently of each other. Among the top commodities in Solano County in recent years, sales of vegetables, walnuts, milk, and almonds have shot up in value while wheat, corn, sheep, beans, and tomatoes have declined. Grown locally a few years ago, sugar beets and fruit for canning are no longer produced in the county.
- The county has nine distinct agricultural regions, each characterized as a separate farming system according to commodities grown, soil conditions, cultivation practices and water conditions. Most important in commodity sales value are the Dixon Ridge, Winters, and Suisun Valley regions.
- Every dollar in agricultural commodity sales leads to an estimated additional 58 cents in off-farm income in the county through processing, farm supplies, machinery sales and other related economic activity. Similarly, each job on the farm or ranch generates an estimated 0.47 of a job elsewhere in the local economy.
- Besides commodity sales, Solano County producers earn income or other economic benefits from conservation payments, energy production, property tax reductions, and other uses of agricultural land and agricultural practices.
- Pushed by the demand for rural homesites from affluent buyers, prices of farmland in the county have escalated in recent years, making land unaffordable for farmers and ranchers seeking to expand. The minimum parcel size requirements under agricultural zoning do little to discourage residential purchases of farmland.
- The continued operation of local farms and ranches as largely family enterprises is limited by the aging of principal operators and the reluctance of younger generation members to take over these businesses.
- Local farms and ranches depend on elaborate systems of irrigation and drainage to grow crops and animals. Designed to move water to and through large parcels, these systems are upset by land divisions that create rural homesites.
- The history of modern Solano County agriculture covers a century and a half of evolving commodities and practices, with major changes brought about by shifts in global prices, irrigation, shipping, environmental conditions, competition from other regions, and new technologies.

What mainly drives the local agricultural economy are influences external to Solano County. The commodities produced by farms and ranches and their profitability is largely determined by global demand and prices for commodities, by corporate

decisions about the location and availability of processing facilities and other commodity outlets, by competition from other regions of California, and by state and federal regulations.

Yet there are significant opportunities for local actions to reduce negative outside impacts and enhance the county's agricultural economy. Agricultural producers themselves are the most important agents in this arena in how well they can adapt to external changes. Needless to say, some Solano County producers are more successful than others in maintaining efficient and profitable operations.

Solano County government also has a role to play in contributing to the prosperity of farms and ranches. Most of this involves the county's policies and practices in land use and agricultural business regulations. Two examples drawn from the details of this report stand out:

- Zoning and other policies that control the placement of rural residences on agricultural parcels, with a view to limiting parcelization and urban impacts on farms and ranches.
- County government actions encouraging the location and retention of processing facilities and other outlets in the county for agricultural commodities.

The project's remaining reports will examine these issues in further detail.

Report II Solano Agricultural Futures Project

Regulating, Protecting and Promoting Local Agriculture: Lessons for Solano from other Counties

Executive Summary

Among the regulatory, zoning, and promotion policies and practices in the other seven counties, what arrangements merit further examination by Solano County? Here is a short list of possible lessons that summarizes the key findings of the following pages:

1. More liberal regulations for produce stands, processing facilities and wineries, regarding the source of commodities to be sold or processed (Contra Costa, Marin, San Luis Obispo, Sonoma).
2. Intermediate levels of regulatory review, between allowing projects by right and requiring a full-fledged conditional use permit, such as site reviews (San Joaquin, San Luis Obispo).
3. Allowing farm stands to sell a larger volume of value-added products and some non-ag products (Contra Costa).
4. Allowing more special events at wineries and other agriculture-related facilities (El Dorado, San Luis Obispo).
5. Adding agriculture-related expertise to county government staffs for such purposes as the review of land use proposals and regulatory assistance to producers (San Luis Obispo, Marin).
6. Written guidebooks that explain the regulatory process for producers and other applicants for projects on agricultural parcels (Marin).
7. Geographical distinctions in agricultural zoning designations that focus on the most productive agricultural regions (Contra Costa and Marin).
8. Discretionary review of lot split proposals and other changes on agriculturally-zoned parcels that go beyond minimum parcel size standards to examine impacts on agricultural resources (San Luis Obispo).

9, Requiring purchasers of agriculturally-zoned parcels, who are not farmers and intend to construct new residences, to demonstrate through a management plan that their parcels will continue to be used for commodity production (Marin).

10. County government financing and support of agricultural promotion programs (Contra Costa, Marin, San Joaquin, Yolo).