

WHAT FARMERS AND RANCHERS SAY ABOUT THE FUTURE OF SOLANO COUNTY AGRICULTURE

A SUMMARY OF FOCUS GROUP DISCUSSIONS

Report I of the Solano Agricultural Futures Project

by

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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 relative 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.

1. Introduction: Scope and Methods

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. They were expressed in nine focus group sessions conducted in May- November, 2006 and held at several locations around the county. A companion report summarizes the results of individual questionnaires completed by invitees to the focus groups.

Seventy-five Solano County residents, most of them local farm and ranch landowners and operators, and a few employed in other agriculture-related activities, participated in the focus groups. More than four times as many persons were initially invited to the sessions, but many were unable to attend because of harvest-time conflicts with their agricultural work. Participants were diverse in agricultural terms, in size of farm and ranch operations, farm family history and longevity in the county, full-time and part-time operator status, agricultural profitability, marketing arrangements, and commodities represented (including tomatoes, livestock, grains, forage, nut trees, wine grapes, fruits, and vegetables).

The groups were organized by type of commodity and/or agricultural area of the county, as Table 1 notes. All but one group were composed exclusively of landowners and operators; the exception was a session devoted to staff persons in government agencies who deal with agricultural programs and issues in Solano County. The first group, intended as a pilot session, was composed of directors of the Farm Bureau who represented a variety of commodities. (In place of an additional focus group that was originally planned for persons engaged in agricultural support and processing businesses, the project staff is individually interviewing such persons.)

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.
- *A Detailed Profile of Agriculture in Solano County*—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.
- *Future Scenarios and Recommendations* — economic options for Solano County agriculture focused on commodity markets, the services provided by agricultural land, and the role of county government.

Table 1: Focus Groups

	Group	Date	Location	Number of Participants
1	Farm Bureau	4/24/06	Fairfield	11
2	Wine Grapes	5/16/06	Suisun Valley	13
3	Rio Vista	5/23/06	Rio Vista	12
4	Organic Producers and Direct Marketers	6/6/06	Suisun Valley	9
5	Row Crops	6/20/06	Vacaville	4
6	Livestock	6/27/06	Fairfield	7
7	Nut Crops	7/10/06	Fairfield	6
8	Public Agencies	7/20/06	Fairfield	11
9	Hay Crops	11/14/06	Vacaville	2

A small number of questions about present and future trends were asked in each focus group session. They are listed in the Appendix to this report. Some dealt with the circumstances of individual producers and particular commodities and areas, while other questions concerned countywide patterns. In keeping with the open-ended and exploratory character of the focus group technique, the questions were intended to open up the sessions to issues and experiences regarded as important by participants. Thus the discussions flowed in different directions as participants interacted and expanded upon topics. While each focus group yielded its own set of comments, several major themes were common to multiple groups. Each session was reported by a manual note-taker, and also recorded electronically for backup use in preparing this summary. Representative comments by participants are incorporated throughout the report to illustrate particular points, but they are not attributed to their sources.

It should be emphasized that this summary reports freely-expressed **perceptions** and **opinions**. Although these personal comments usually had some factual basis, taken together they do not constitute an objective nor comprehensive analysis of Solano County agriculture. Later phases of the Solano Agricultural Futures project will provide this analysis.

2. The Future of Agriculture in Solano County

Focus group participants were asked to predict the shape of Solano County agriculture 20 or more years into the future. Besides commenting on countywide trends, they also talked about the prospects of specific commodities and geographical regions of the county. Many of these predictions, although offered as generalizations for the county and its regions, were extensions of the future of their own personal agricultural operations. (See companion report on questionnaire responses for a more complete analysis of individual farm circumstances and operator views.)

Participants for the most part offered gloomy economic predictions for local agriculture. They generally predicted declines in the size and health of the countywide agricultural sector as a continuation of current and recent trends.

In 20 years I do not see a lot of hope. I think we should cover all of our land in concrete until the value of the crops that come off of that land are worth more than having it in concrete, then we can doze the concrete out and go back to growing crops. - *Organic Producer and Direct Marketers group, 6/6/06*

Such negative assessments were partially countered by predictions from a few participants that small pockets of relative prosperity and entrepreneurial success among local farm producers will appear or continue.

In 20 years, the agricultural production that is left will be flourishing. The scale will be much smaller and the value will be much higher. I think the future is bright. - *Organic Producer and Direct Marketers group, 6/6/06*

In effect, we heard competing pessimistic and optimistic scenarios about the future of local agriculture, with the pessimists outnumbering the optimists, but the latter at times quite insightful about the basis of their more positive predictions in specific commodity and regional trends.

Countywide Projections

Participants mentioned these scenarios as signs of future agricultural decline in the county

- Fewer commercial farm operations in the county, but more “hobby” farms on relatively small parcels.
- Increased concentration of local agricultural production on large farms.
- Continued residential development—especially in the form of rural residences—chipping away at the agricultural landscape.
- Increased restrictions on agricultural operations, as residential neighbors increasingly complain about noise, dust, odor and other farm impacts.

- Increased desire of agricultural landowners wanting to sell off small portions of their properties to generate income to support their farm operations.
- Increased dependence on off-farm income to subsidize their agricultural activities and rural lifestyles.
- Escalated market prices for rural properties making it prohibitive for existing farmers to expand their operations and for new farmers to enter the business.
- Decreased interest among younger members of farm families in succeeding to the management of their agricultural operations.
- Increased levels of agricultural acres retired from production in either fallow or undeveloped state because of low commodity prices.

Local and external forces will combine to create these scenarios. Participants affirmed that ongoing residential and urban growth in Solano County will further harm local agriculture in two ways. First, the direct conversion of some farmland to urban uses will decrease the total amount of agricultural land in Solano County. Second, the efficiency and productivity of existing farms will be harmed by conflicts with residential neighbors. Singled out for particular attention was the “parcelization” of the agricultural landscape produced by single residences in rural areas.

The economic viability of Solano County producers will continue to be determined by the external economic and technological forces of farming. Solano County producers will always be concerned with what they earn in relation to their costs. Thus many participant predictions about future agricultural prospects in Solano County were based on views of likely developments in national and international markets for local commodities.

Commodities and Regions

Besides talking about countywide trends, most focus group participants concentrated their predictions on what was most familiar to them—specific commodities and farming regions of the county. And here is where we heard most of the exceptions to the general picture of a declining agricultural industry. The negative views of the future were partially offset by predictions from a few participants that small pockets of relative prosperity and entrepreneurial success among local farm producers will appear or continue. Both pessimistic and optimistic scenarios about the future of local agriculture were presented, with the pessimists outnumbering the optimists, but the latter at times quite insightful about the basis of their positive predictions.

The prediction overall was for a brighter future for agricultural operations in eastern than in western parts of Solano County. Vacaville was a commonly-cited point of division, separating large scale agricultural operations to the east from the smaller farms in the west. This coincided to some extent with different intensities of development, with more rural residential growth and increasing parcelization of farm properties in the west. As one participant noted, the agricultural west will increasingly be characterized by “hobby” farms and some niche farms. Eastern regions, by contrast, were projected to retain their large agricultural parcels, necessary for certain kinds of crop and animal production. Specific regional predictions included:

- The Suisun Valley will experience an increase in high end rural residential development, with some farms becoming “wine estates.”
- Other valleys in the western and central regions of the county also will be less agriculturally productive.
- By contrast, commercial agriculture in the Winters region will continue to prosper with farms in nut and fruit production.
- Large-scale agriculture will continue to dominate the Montezuma Hills, Rio Vista, and Dixon regions.

As to specific commodity trends, the following were predicted:

- In 20 years, the top farm products in Solano County in market value will be nursery, cattle, and hay. Commodities grown for direct marketing will increase in importance, but will be one of the top crop groups in countywide market value.
- Processed tomatoes will be less important in the county’s agricultural future, with local production largely dependent on the continued operation of the one remaining plant in the county, located in the Dixon area.
- There will be niche farm opportunities for operators on small plots willing to work long hours and seek out specialized markets for fruits and such products as olive oil and cut flowers. These opportunities will include on-farm sales, direct marketing, and agri-tourism.
- Stone fruit production, in the past a major component of Solano agriculture, will be confined to the niche markets mentioned above, with large volume sales no longer possible because of the loss of processors, the difficulty of meeting the demanding requirements of large grocery outlets, and foreign competition. As a result, many of the remaining pear, apricot, peach and other fruit trees will be pulled out and these acres converted to other farm use, left fallow or turned to residential uses. However, a few participants speculated, this scenario could be changed by the emergence of new markets. Mentioned was the possibility of large institutional purchasers—schools, correctional facilities, etc.—opening up to locally grown commodities.
- Additional acres will be converted from other commodities to nut trees, with walnut, almond and orchard production remaining profitable because of producer entrepreneurship and strong demand in international and domestic markets.
- Opinions varied as to the future of the Solano wine grape industry—much of it in the Suisun Valley—with some participants projecting a continuation of the weak markets of the past several years, and the pulling out of some vineyards, because of overproduction of local grapes and the domination of other growing areas.
- Additional acres in the Jepson Prairie area south of Dixon and north of the Montezuma Hills will be devoted to cattle and hay production, as land will be shifted from sheep raising and field crops. The large farms of the Montezuma Hills region are seen as profiting from the development of energy crops and wind production.

Recent Trends

The continuation of recent trends in the county, as measured by agricultural data sources, was implicit in many of these predictions. Focus group participants were shown a one-page summary of key agricultural trends, Appendix 2, over the past 20 years, as reported by the Solano County Agricultural Commissioner and the U. S. Census of Agriculture. Recent important changes include:

- A declining agricultural economy dropping in inflation-adjusted terms from \$255 million in 1981 to \$188.3 million in 2004. (By contrast, statewide market values increased substantially.)
- Significant shifts in the relative market value of particular commodities over the same period. Considering the top ten commodities by year, (1) nursery, cattle, hay, walnuts, and vegetables increased in relative importance; (2) sugar beets, grains, beans, sheep, and fruits dropped out of the top ten; and (3) tomatoes declined significantly in relative importance.
- Slight increases in the number and average size of farms in the county, from 359 in 1987 to 384 in 2002.
- A steady aging of farm operators, with the average age in the county increasing from 52.5 years in 1987 to 56.2 years in 2002.

Participants challenged the accuracy of some of these official numbers, particularly those pertaining to the number and size of farms. The critique from many was that farm numbers were exaggerated and farm sizes underestimated, because of the Census of Agriculture definition of a “farm” as an enterprise that earned at least \$1,000 in commodity sales annually, thus including many small enterprises that are not economically viable commercial operations.

The Intangibles of Farming

While the dominant themes in the conversations concerned farm income and profitability, there was much discussion in three of the groups about lifestyle considerations—what we can call the “love of farming.” Several participants noted how much they wanted to remain in agriculture because of satisfactions inherent in such work, to the point that this personal intangible could offset poor economic returns in future decisions about whether or not to keep farming.

Ranching is a way of life. - Livestock group, 6/27/06

Some said that they willingly used off-farm income to subsidize their agricultural operations. Among participants who expressed such sentiments were both landowners who had returned to family farms after retiring from other occupations and newcomers to the county who had purchased agricultural parcels for rural residential purposes but were interested in farming their land.

Regretfully, some participants said, their passion for continuing to farm was not shared by children who would inherit the property but had other interests.

We want to continue for the love of it. Farming is in our blood. But the kids will do it only if it is profitable. - *Farm Bureau group, 4/ 24/06*

3. Improving the Prospects of Local Agriculture

It was a short step from asking focus group participants to predict the future of Solano County agriculture to getting their opinions about what can be done to improve its economic prospects, especially farm income. Suggestions covered three major areas: individual farmer strategies; expanding the markets for local commodities; and assistance from county government and other organizations.

Individual Farmer Strategies

Some Solano County farmers who are free of debt, own a lot of land, and have off-farm income are better positioned than others to reduce costs and otherwise enhance their agricultural income. But what can be done more proactively to improve agricultural income across the board? Suggestions in this area from participants largely reflected their understanding of what it takes to be successful in local agriculture. There is no uniform prescription for Solano County farmers. For some producers, “success”—largely defined as profitability—is helped by increasing the size of the operation while for others it is a matter of staying small or becoming smaller in acres and operations.

Commodity and regional distinctions explain part of the difference. An expansion strategy works for the eastern regions of the county where row crops, hay, and animal production require large economies of scale that allow for increased efficiencies in the use of farm machinery and management resources. Specific profit-building strategies associated with large farm operations included the following participant suggestions:

- Integrating into the operation as many farm-related functions as possible to save costs.
- Developing custom services that can be sold to other farmers, such as fruit drying facilities and special equipment for quickly disposing of brush and other unwanted vegetation.
- Changing commodities according to market conditions, more easily accomplished with row crops rather than with permanent plantings.
- Maintaining good renter-landlord relations to continue access to good land and obtain favorable rental terms. Most large producers in Solano County seek economic efficiencies by leasing some of their operational acres from others, a less expensive option than purchasing additional land

On the other hand, small size is associated with the specialized fruit, vegetable, and other crops grown in western regions where labor is more intensely applied. Some participants pointed to successful four- or five-acre farms producing commodities for niche markets

in which family members carry out all of work, thus eliminating the costs of hired labor. One participant explained how he downsized from 30 to 5 acres to become more profitable by focusing on growing fresh-cut flowers and selling them at farmers' markets. Other small-parcel farmers, however, find profits in growing multiple commodities—typically a variety of fruits and vegetables—for on-farm sales or other direct markets.

For smaller, niche-oriented crop producers, a different set of suggestions emerged. Besides the self-evident importance of hard work, they included:

- Sharing risks and resources among small growers, including labor and sources of low interest loans.
- Experimenting with different crops likely to have consumer appeal.
- Providing recreational experiences on farms, including U-Pick operations, although some participants asserted that agri-tourism opportunities were limited.

A quite different income enhancement strategy was suggested by a few participants—selling off portions of their agricultural property for rural residence development. This became a contentious issue in several focus groups, as other participants challenged the idea as harmful to continuing agricultural operations located adjacent to rural residential development.

Expanding the Markets for Local Commodities

Most of the group discussions about producer strategies emphasized the importance of finding and strengthening markets for local commodities. In particular, participants wanted to see more processors in the county or region. Producers of livestock, fruit, canning tomatoes and other row crops emphasized this point, bemoaning the loss in recent years of nearby processing outlets for their products. For cattle ranchers, the closest slaughtering facilities are in Oroville. Sheep growers have access to the Superior Packing plant in Dixon, which is the only sheep processing plant west of the Rocky Mountains. Local tomato growers essentially have only one steady outlet for their product--the only tomato processing plant in Solano, the Campbell's facility outside Dixon-- because of the closure in the past 15 years of plants in nearby counties and the major shift in production and processing to the south, from the Sacramento Valley to the San Joaquin Valley.

Focus group discussions made clear that having nearby processing facilities is critical to continued local production of several commodities. One estimate given in a focus group is that trucking products from the field to a processing facility is economical only up to 45 miles. Certainly the loss of key processing outlets for several Solano commodities in recent decades has severely affected farmers' incomes and has contributed substantially to the declining market value of agriculture in the county. It also has forced some significant shifts in the commodities grown by local farmers. Notable cases of lost outlets include:

- the termination of sugar beet production in Solano and Yolo counties because of the closing of the last beet refinery in northern California;
- a sharp decline in markets for pear, prune and other local fruit production because of lost access to such canneries as Tri-Valley and Del Monte, either because the processors went out of business or they transferred grower contracts to other areas;
- the virtual disappearance of outlets for wool production in the county.

Furthermore, focus group participants said the remaining processing facilities are vulnerable to outside forces. The prime example is the Campbell's tomato plant in the Dixon area, a potential victim of traffic congestion from the proposed race track across the road from the cannery. Without costly improvements to the I80-Pedrick Road interchange and other local highway projects, track-generated congestion would affect the timely delivery of the many daily truckloads of perishable tomatoes received during the canning season, putting at risk the viability of the operation. Several participants predicted closing of the plant would bring an end to tomato production in Solano County. Wine grape growers have a different problem in maintaining outlets for their commodities because of the difficulty in securing regular contracts with wineries and competition with other grape growing areas.

Participants in several groups cited county government denial of proposals to locate new dairy farms in Solano as a missed economic opportunity for present and future hay and grain producers in the county. Noted one producer:

As long as the dairymen are making money there is a market for forage. The highest quality hay goes to milk cows. *—Hay Crops group, 11/14/06*

Other participants said that the denial of new dairies sent the wrong message to other agricultural processing industries about the wisdom of locating operations in Solano County.

Different market strategies were identified for farmers with smaller farm parcels involved in fruit, nut and horticulture production, especially those in Green Valley, Suisun Valley and other western parts of the county. Direct marketing producers talked about the challenge in reaching multiple purchasers—usually families and other ultimate consumers—through on-farm sales and farmers' markets, restaurants, and other external venues. The small growers participating in our sessions were already engaged in selling to such markets, but they are looking for new opportunities to stabilize and expand their businesses. Thus there was considerable discussion in two of the sessions about gaining access to larger purchasers--retail groceries and group institutions including local schools and correctional facilities. The major grower challenge in selling to such outlets, several participants noted, is the difficulty of supplying produce in the quantity and type demanded and in meeting delivery schedules.

Assistance From the County and Other Organizations

The role of county government was paramount in the discussions of what public agencies could do to help improve the economic health of local agriculture. Participants wanted both (1) county government actions more supportive of farmers and ranchers, and (2) fewer obstacles to making money on the farm that come from county regulations and procedures. We elaborate in more detail in the section below complaints expressed about regulations and procedures. But as to proactive steps that could be taken by county government, participants mentioned these actions:

- Replace or improve the existing overpass at Pedrick Road to create a better route for trucks and farm equipment over I-80 in the Dixon area.
- Expand sheriff patrols in rural areas to counter vandalism and trespassing.
- County investment in a “Solano Grown” campaign to promote local agricultural products.
- Assistance in obtaining air pollution credits for local producers of agricultural crops in recognition of the air quality benefits of agricultural production in carbon sequestration.
- Improve promotion of local agriculture at fairs and other events.
- Assistance in educating the urban population of Solano County about the benefits and problems of local agriculture.
- Help small producers to join together in collective efforts to share risk, accommodate labor needs and process commodity production

A common suggestion was the funding and creation of staff positions with expertise pertinent to value added agricultural practices. Two distinct but related types of expertise were suggestion: (1) Providing advice and information on cutting-edge agricultural technologies, including cultivation and other practices for producing current commodities and developing new commodities such as energy crops; and (2) Helping farmers and ranchers to develop new markets and promote the county’s commodities. Participations suggested the Agricultural Commissioner’s office or the UC Cooperative Extension office as appropriate county departmental homes for such expertise.

4. Impediments to Agricultural Prosperity

Finally, this report summarizes what the focus groups said about the problems faced by farmers and ranchers in Solano County, especially the obstacles that impose costs on their operations or limit their agricultural income. Table 2 identifies the agriculture sector problems discussed in two or more of the nine focus groups. These issues were voluntarily identified by participants. Earlier parts of this analysis touched upon several of these areas, including the loss of processing plants, government regulations, foreign competition, and the rejection of new dairy farms.

Table 2: Agriculture Sector Problems Identified by Two or More Focus Groups

<i>Problem</i>	Group 1 Farm Bureau	Group 2 Wine Grapes	Group 3 Rio Vista Area	Group 4 Organic- Direct Marketing	Group 5 Row Crops	Group 6 Livestock	Group 7 Nut Crops	Group 8 Public Agencies	Group 9 Forage Crops
Loss of Processing Plants	X	X			X	X	X	X	X
Excessive Land Prices	X		X			X		X	x
Lack of Political Influence	X	X	X			X	X		
Parcelization	X	X					X		X
Government Regulations	X	X	X	X		X	X	X	X
Foreign Competition	X	X					X		x
Labor Costs		X	X				X		
Dairy Moratorium	X	X	X		X			X	X
High Production Costs	X	X	X		X	X			
Urban-Agriculture Conflicts			X				X	X	X
Rural Road Conditions			X		X				
Property Tax Assessments			X				X		X

The most discussed problems according to the number of focus groups where they were mentioned, were (1) government regulations, (2) loss of processing plants, (3) the limited influence of agriculture on county policy, (4) limits on new dairies; and (5) high production costs. (It may be revealing that water supply and quality issues, top concerns of the agricultural industry in many other California counties, were barely mentioned in our focus group sessions.) The rest of this section provides further detail on participant perceptions of several problems.

County Regulations

Focus group participants had more to say about the negative effects of governmental regulations, primarily those administered by county government, than any other perceived agriculture-related problem. This was a highlight of the discussions of all but one of the nine focus groups. Indeed, although we had a specific inquiry about regulations written into our prepared guide for the sessions, participants usually volunteered comments about this area before we had a chance to ask the question—often responding to an earlier item about what was needed to “improve the economic status” of local agriculture. Reforming county regulations—making them more friendly to agricultural needs—ranked with the expansion of markets for local products, including more processing facilities, as the favored route to greater farm and ranch prosperity. Some participants believed that comparable regulations in nearby counties are less onerous and less costly in applicant fees than those in Solano County, without supplying specifics.

The critique generally hit on the perceived inflexibility of land use, building, health, and environmental regulations in allowing farms and ranches to put in physical improvements or change practices intended to reduce costs, improve operations, or increase income. This was seen by many participants as limiting value added activities for their operations. Representative comments included:

There are so many people standing in your way. So many permits and fees. With other people having to approve and sign-off on my ideas, sometimes it's like knocking my head against the wall. – *Organic Producer and Direct Marketers group, 6/6/06*

These planning and zoning interpretations are holding up the process of selling directly to customers. Producers need to be able to put in the infrastructure to provide potential customers with the type of farm experience they want. – *Wine Grapes group, 5/16/06*

The most intense criticism along these lines was expressed by growers engaged in or planning direct marketing activities—especially participants in the Wine and Organic/Directing Marketing groups, mostly located in the Suisun Valley and the Vacaville area. Growers in these groups questioned the county's restroom and other sanitation requirements for produce stands, prohibitions on holding revenue events such as weddings on farms, setback requirements for farm stands, and limitations on retail

nurseries and bed and breakfast operations on farms. Some of the requirements were criticized as applying standards established for urban uses with higher volumes of traffic to more modest and rural situations with lighter public uses.

Growers in other groups also pointed to the onerous effects of various regulations. One participant in the Rio Vista group composed of row crop producers complained about what he regarded as an excess county fee of \$450 to approve a permit for drilling a well at a total cost of \$2200, noting that less than 30 minutes was spent by a county staff person in reviewing the proposal.

As suggested by Table 3, criticism extended to more than the specific content of the regulations. Participants also pointed to the interpretations of the formal rules by county staff, excessive fees applied to process applications, and inefficient county procedures that increase the time demands and other costs for agricultural applicants. Different regulatory programs in county government, one participant complained, did not work cooperatively nor share data, resulting in confusion and complications for permit applicants with projects that required review by multiple agencies. Noted another participant:

It takes too long, requires too many trips to get the right permits. It's impossible for you to get the right permit on the first trip. – *Rio Vista group, 5/23/06*

Overall, participants characterized county regulations and the process of applying them as unfriendly to Solano County agriculture. The comments covered a variety of regulatory programs administered by several county departments, including requirements mandated by the state. A few participants went further to describe some interactions with county regulators staff as negative experiences.

The Resource Management staff needs a “how can we help you” attitude, not “let me find what is wrong with this” attitude. – *Public Agencies group, 7/ 20/ 06*

Table 3. County and Other Governmental Regulations Perceived as Onerous to Local Agriculture (listed in order of focus group mention)

Regulations	Perceived Problems – Suggestions	Focus Groups where Cited
County fees for processing/approving project proposals	Excessive fees for improvement projects	1,2,4,6,8
County moratorium on new dairies	Limits agricultural opportunities, particularly markets for hay and small grains producers	1, 3, 5, 8
County zoning	Restricts ability to establish farm-related	1,2,4

	businesses	
Department inconsistencies	Differences between county departments in reviewing and approving projects	2,4
Customer service in county departments	Inefficient and unresponsive staff responses, creating costs in time and resources for permit applicants	3,4
Farm stand regulations	Setback, bathroom, hand washing, etc. regulations are unreasonable	4
Williamson Act requirements	Confusion about application to value-added projects on farms	2
Property tax assessments	Excessive values assigned to irrigation systems and other farm improvements	3, 7
Environmental mitigations	Force developers to purchase farmland for mitigation, thus competing with production agriculture	1
Air quality regulations (regional agency, state)	Air quality measurements inadequately applied to agriculture. Producers should receive credits for clean air effects of farm vegetation	7
Sprinkler requirements (Dixon Fire Department)	Excessive requirements for sprinklers on hay barns, etc	8, 9

To a lesser extent, focus group participants also discussed the impacts of regulations administered by other public agencies—local, state, and federal. For example, several participants said that air quality regulations were unfairly applied to agricultural uses. The complaint was that the requirements slighted the urban and vehicular (rather than stationary) sources of most air pollution in the Solano region, while not giving sufficient credit to the carbon sequestration and thus air quality benefits of agricultural plantings. Some participants suggested that county government should seek pollution credits for Solano producers because of plant contributions to improving the environment.

Limited Influence of Agriculture

Underlying the widespread criticism of county regulations was the general belief among focus group participants that county decision makers, notably the Board of Supervisors, are not expressly sympathetic and knowledgeable about the needs and circumstances of the county’s agricultural sector. This seemed to involve more than a recognition of the obvious numerical disadvantage of farmers, ranchers, and others involved in Solano County agriculture, a gap that has increased over the years as the county has become more urban and occupationally diverse. Farm residents certainly are a small sliver of the total population; they are a small part even of the 22,000 residents of the county’s unincorporated (rural) areas, who in turn are less than 5 percent of the total Solano population of more than 400,000. The negative perception about political power also is based on the belief of participants that supervisors and other local leaders are not genuinely interested in supporting agriculture and that this sector inevitably loses out to

urban interests when the two are in conflict. This was demonstrated for some participants by the policy on new dairies in the county:

County supervisors only give lip service to agriculture. They caved in to the cities on the dairy issue. – *Nut Crops group, 7/10/06*

Other Issues

Comments about county regulations and the limited influence of agriculture by no means exhausted the citation by focus group participants of problems faced by agriculture. Table 3 identifies a number of other perceived problems; here is a brief elaboration of several of these issues:

PROPERTY TAXES—Growers, especially in the tree nut group, believe that the tax assessment policies of the county Assessor’s Office penalize them for following modern production practices and implementing environmentally friendly infrastructure improvements. One producer noted that county tax assessments for orchards are based on the number of trees, but modern orchard management techniques require increased planting density and shorter production life for the trees.

AGRICULTURAL-RESIDENTIAL CONFLICTS—Some participants noted a recent increase in “edge” conflicts, as new homeowners in rural areas complain about the odor, dust, pesticide spray, and other effects of nearby intense agricultural operations. For their part, farmers and ranchers were concerned about restrictions on their agricultural practices because of the arrival of residential neighbors—including congested and pot marked rural roads that increase the costs of transporting agricultural products, roaming dogs that attack sheep and other livestock, and vandalism. Illustrative incidents were offered: (1) A residential neighbor requested a farmland owner to idle several crop rows to provide a landing spot for his helicopter, (2) another landowner’s neighbor wanted a gate cut into their common fence giving him access to the farmland, and (3) the Rio Vista airport was closed to crop dusters because of pressure from residents of the new nearby residential subdivision although the field was originally built to serve agriculture. As one producer explained:

Houses are gradually coming and farming is diminishing. This rural residential development makes it harder to farm. I think it will be the death of a thousand cuts. Gradually, we will be squeezed out. –*Hay Crops group, 11/14/06*

PARCELIZATION—According to many participants, parcelization—the division of agricultural parcels into ranchettes and other rural homesites--increases the number and severity of conflicts between agricultural producers and rural residents. Agricultural areas in the county affected by parcelization include Green Valley, Suisun Valley and Pleasants Valley Road. Producers in these three areas pointed out that their profitability and farm practices are limited by rural residential neighbors who do not understand the needs of agriculture. The large scale production regions east of Vacaville stand the most to lose from parcelization. Farming in the eastern areas is dependent on aerial chemical

application and frequent nighttime operations, practices that are incompatible with residential patterns. A special problem noted by a few focus group participants is that the division of agricultural parcels into smaller units often conflicts with the agricultural irrigation and drainage infrastructure that has been constructed over the years.

LAND PRICES—The development of ranchettes and hobby farms, as well as the overall urbanization of Solano County, drives up land values in the area. A major consequence is that farmers and ranchers seeking to expand are priced out of the market, with values set at levels higher than can be supported by agricultural income.

Appendix 1

Focus Group Questions

Intro: Focus is on economic well-being of Solano County agriculture—on expanding and maintaining income for local producers.

*Ground Rules: 1. Everybody participates 2. Nobody dominates
3. Confidentiality; no individual attributions. 4. Done by 9 p.m.*

1. Take 2-3 minutes, each of you, to tell us about your agricultural operation and farm family background. Also what you see as the status of agriculture in Solano County. (2-3 minutes max!)
2. What about the specific commodity, or agricultural area of the county, represented by this group? How is it doing these days economically? What are the long-term trends for a prosperous commodity area?
3. Here are some numbers about recent trends for Solano County as a whole. What do they mean? (Distribute copies of trend info from Ag Commissioner and Ag Census. Point out major trends in market value, profitability, top commodities, farm numbers and sizes.)
4. What needs to be done to improve the economic status of local agriculture—grower income?
5. What are the prospects of expanding agricultural income in the following or other ways?
 - a. More emphasis on certain commodities currently grown in the county.
 - b. Shift to different commodities.
 - c. Energy crops
 - d. Direct marketing, ag tourism
 - e. Increased participation in conservation and wildlife preservation programs?
 - g. Organic farming
 - h. Regulatory changes
 - i. other _____
6. What changes in county regulations would you like to see?
7. What **will** Solano County agriculture look like 20 years from now?
8. What **should** it look like in 20 years?
9. Other comments?

Appendix 2

SOLANO COUNTY AGRICULTURAL TRENDS OVER TWO DECADES

Market Value of Commodities (in millions) –Agricultural Commissioner

	2004	2000	1995	1990	1985	1981
Total	\$205.4	\$185.1	\$180.3	\$175.2	\$153.1	\$151.0
Inflation Adjusted	\$188.3	\$185.1	\$195.8	\$214.8	\$219.7	\$255.5
Solano % of California Total	0.56%	0.62%	0/72%	0.74%	0/92%	0.94%
Solano State Rank	29 th	30 th	28 th	30 th	26 th	26 th

California Market Value of Commodities (in billions)—Agricultural Commissioners

	2004	2000	1995	1990	1985	1981
Total	\$36.8	\$30.0	\$25.0	\$23.7	\$16.6	\$16.0
Inflation Adjusted	\$33.7	\$30.0	\$27.2	\$29.0	\$23.8	\$27.2

Ranking of Top Commodities – Agricultural Commissioner

	2004		2000		1995	
1	NURSERY PRODUCTS	1	NURSERY PRODUCTS	1	TOMATOES	
2	CATTLE & CALVES	2	TOMATOES	2	NURSERY PRODUCTS	
3	HAY ALFALFA	3	GRAPES WINE	3	HAY ALFALFA	
4	TOMATOES	4	CATTLE & CALVES	4	WHEAT	
5	VEGETABLES	5	HAY ALFALFA	5	SUGAR BEETS	
6	MILK MARKET FLUID	6	CORN GRAIN	6	CORN GRAIN	
7	GRAPES WINE	7	SHEEP LAMBS	7	CATTLE & CALVES	
8	WHEAT	8	VEGETABLES	8	GRAPES WINE	
9	WALNUTS ENGLISH	9	WHEAT	9	SHEEP LAMBS	
10	CORN GRAIN	10	MILK MARKET FLUID	10	WALNUTS ENGLISH	

	1990		1985		1981	
1	TOMATOES	1	TOMATOES	1	SUGAR BEETS	
2	SUGAR BEETS	2	CORN GRAIN	2	TOMATOES	
3	NURSERY PRODUCTS	3	SUGAR BEETS	3	WHEAT	
4	CATTLE & CALVES	4	WHEAT	4	CORN GRAIN	
5	CORN GRAIN	5	CATTLE & CALVES	5	CATTLE & CALVES	
6	WHEAT	6	NURSERY PRODUCTS	6	BEANS DRY EDIBLE	
7	HAY ALFALFA	7	SHEEP LAMBS	7	NURSERY PRODUCTS.	
8	SHEEP LAMBS	8	HAY ALFALFA	8	HAY ALFALFA	
9	BEANS DRY EDIBLE .	9	SUNFLOWER SEED	9	SHEEP LAMBS	
10	BEANS SEED	10	PLUMS DRIED	10	PEARS	

U.S. Census of Agriculture

	2002	1997	1992	1987
Number of Farms	915	795	850	895
Average size of farm (acres)	384	455	400	359

Farms between 1 to 49 acres in size	552	459	485	531
Farms between 50 to 500 acres in size	250	213	246	221
Farms larger than 500 acres	113	123	119	143
Average age of Farm Operators	56.2	55.8	54.5	52.5