



NATURAL SYSTEMS & AGRICULTURE ELEMENT



UC Cooperative Extension

2.10 Agriculture and Food

Background

Marin's farms and ranches have been a part of its diverse landscape since European settlers arrived here in the mid-1800s. Since that time, many generations of agricultural families have managed natural processes to provide food, forage, fiber, and other products vital to human survival. Livestock and dairy products have been the foundation of the agricultural economy here, but diversified farms also continue to produce different kinds of vegetable, fruit, and forage crops. Dairies continue to generate the majority of agricultural revenue (see Figure 2-23). Dairies and livestock ranches cover most of the county's agricultural land, while smaller areas of row crops occupy better soils, often in



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valley bottoms. Local animal products include milk, beef, sheep, poultry, and eggs, with oysters, mussels, and clams being produced by the aquaculture industry. Local farms also produce fruits, vegetables, wine grapes, flowers, nursery crops, wool, hay, honey, and herbs. Specialty products such as organic vegetables, grass-fed meats, olive oil, and farmstead cheese now supplement traditional farm income.

Agricultural ecosystems, or “agroecosystems” integrate elements of natural systems and managed agricultural practices into working landscapes that balance environmental soundness with social equity and economic viability. Inherent in this definition is the idea that sustainability must be extended not only globally but indefinitely in time, and to all living organisms, including humans. Agroecosystems are controlled by management of ecological processes. Their position in the continuum between natural and cultivated ecosystems depends on the kind of crops produced and management systems employed by individual farmers and ranchers.



“The question we must deal with is not whether the domestic and the wild are separate; it is how, in the human economy, their indissoluble and necessary connection can be properly maintained.”

- Wendell Berry

Agroecosystems can be intensively managed, as in the case of some row crop farms, or can simply involve the harvest of naturally produced biomass, as with low-input range livestock operations. Agroecology often incorporates ideas about a more environmentally and socially sensitive approach to agriculture, one that focuses not only on production, but also on the ecological sustainability of the productive system. This definition incorporates a number of societal and production issues that go well beyond the typical historic limits of agriculture.

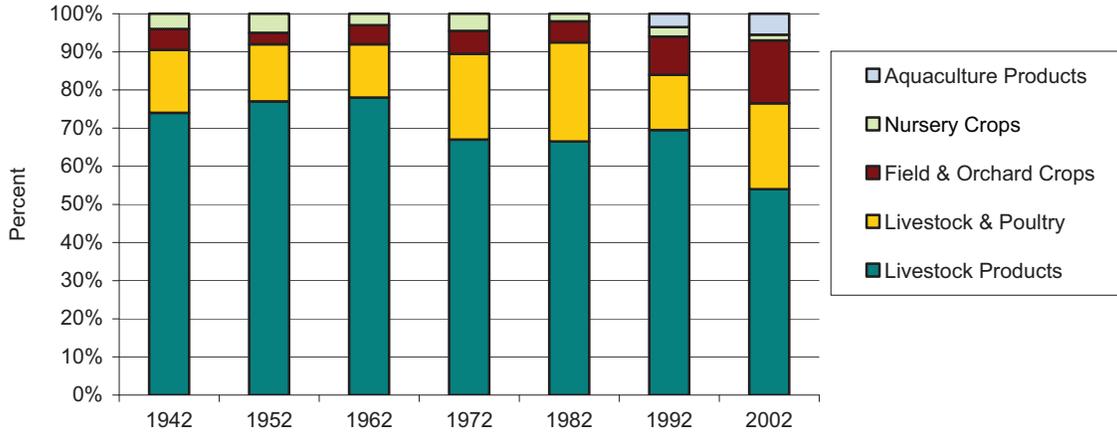
In other cases, agricultural practices can be used to enhance native species diversity by emulating or replacing essential disturbance regimes that have been lost through human suppression of natural processes.

Marin is a leader in organic agriculture, and local producers and support agencies are mounting a concerted effort to certify organic production. The Marin County Agricultural Commissioner’s office established the first local government organic certification agency in the United States. Since 2000, Marin Organic Certified Agriculture (MOCA) has certified 30 local producers and processors to meet USDA National Organic Program standards. This program represents an efficient and effective public agency agricultural cooperative collaboration. The Marin County Agricultural Commissioner’s office has also put into place the state’s first certification for grass-fed livestock.



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Figure 2-23
Marin County Agricultural Value by Commodity Category, 1942–2002¹



Aquaculture Products have included oysters, mussels, and clams that are farmed (not wild harvested). Nursery Crops have included container or bare root plants, and cut flowers. Field and Orchard Crops include pasture, fruits, nuts, vegetables hay, silage, and field crops. Livestock and Poultry includes eggs, cattle, lambs, and other livestock. Livestock Products include milk and wool.

¹In 2003, Aquaculture Products were 5%, Nursery Crops 1%, Field and Orchard Crops 16%, Livestock and Poultry 26%, and Livestock Products 53%.

Source: 1942-2003 Marin County Department of Agriculture, Weights and Measures.

Figure 2-24
Status of Lands in Agricultural Use in Marin County

Description	Approximate Acres	Percent
Private agricultural lands:		
Private agriculturally zoned land in Land Conservation Contract (10-year) ¹	82,157	48.6%
Private agriculturally zoned land in Farmland Security Zone Contract (20-year) ¹	16,417	9.7%
Private agriculturally zoned land not under land conservation contract ¹	38,426	22.8%
Public agricultural lands:		
Golden Gate National Recreation Area and Point Reyes National Seashore ²	32,000	18.9%
Totals	169,000	100.0%

¹ May 2003 Marin County Assessor's Office.

² 2003 National Park Service.



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The Marin Agricultural Land Trust was the first private nonprofit in the nation created specifically to protect agricultural land. Since 1988 MALT has acquired conservation easements on 49 ranches covering about 33,000 acres (roughly one-fourth of the private agricultural land in Marin; see Map 2-20). Many of these were purchased with \$15 million originally allocated by State Proposition 70, which was fully expended by 2000. MALT easements are now purchased with a combination of private contributions, grants, and 10% of County Open Space District uncommitted acquisition funds (about \$35,000 annually).



Forage for livestock in Marin can vary annually by more than 200% depending on rainfall, one of the many variables that make ranching a challenging occupation. Total annual forage production ranges from approximately 1,800 pounds per acre on infertile steep slopes on drier sites to more than 6,000 pounds per acre on moist, fertile soils. In contrast, some of the drier, interior regions of California produce less than 1,000 pounds per acre annually.

The county agricultural land base consists of about 137,000 acres of private land and 32,000 acres of federal land in the Point Reyes National Seashore and Golden Gate National Recreation Area (see Figure 2-24). Federal legislation provides authority to lease or permit lands for agricultural use in these areas. The Agriculture (A), Agricultural Residential Planned (ARP), and Agricultural Production Zone (APZ) districts generally require at least 60-acre parcels in specific locations in the Inland Rural and Coastal corridors, and coastal areas. The Limited Agricultural (A-2) and Residential Agricultural (R-A) districts allow residential uses and limited agriculture. Specified agricultural land uses are also allowed in the Residential Single Family Planned (RSP) and Residential Multiple Planned (RMP) districts. This Section of the Countywide Plan contains policies and programs that seek to protect agricultural land and operations and maintain agricultural use.

Most customary agricultural production uses and related facilities are currently permitted under the Marin County Development Code without the need for master plans, use permits, or other local zoning entitlements. For example, these activities include livestock grazing, crop production, and dairy operations. The Development Code also provides use permit exemptions for small-scale agricultural production and retail sale facilities, and exemptions from the design review process for agricultural accessory structures and related activities, such as barns and facilities for milking and packaging of fruits and vegetables. The types of agricultural land uses that are subject to special zoning requirements are for the most part limited to livestock sales/feed lots and agricultural processing and retail sale facilities not otherwise exempt based upon their size and the source(s) of product.

In the Coastal Zone, coastal development regulations adopted by the County to implement the State Coastal Act and Local Coastal Program may trigger a coastal permit for dwellings and agricultural production facilities and operations. Common agricultural land uses and facilities, such as livestock grazing, crop production, barns and storage buildings, and agricultural fencing, however,



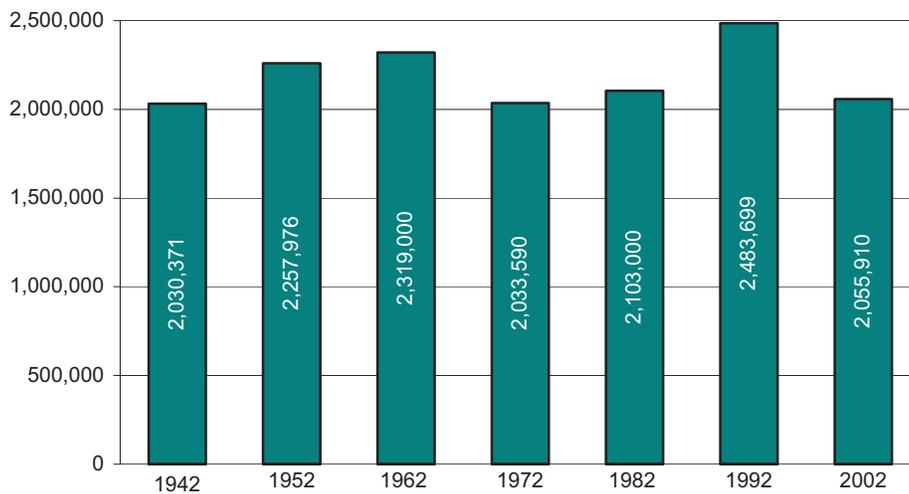
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are exempt or may be excluded from coastal permit requirements.

Agricultural parcels are eligible for land conservation contracts under the Williamson Act (enacted by the State in 1965), provided that certain acreage, zoning, and production criteria are met (see Map 2-20, Protected Agricultural Lands). Land conservation contracts restrict land to agriculture for 10 years in exchange for tax assessment based on agricultural use rather than market value. These contracts allow only one principal residence per ownership, but additional dwellings may be allowed for family members or agricultural workers, in compliance with zoning. In agricultural zoning districts, landowners can request that the County create a Farmland Security Zone, which allows owners to gain a 35% reduction in assessed valuation for a minimum period of 20 years.

Agricultural land can also be preserved through conservation easements with land stewardship entities that compensate landowners financially for giving up non-agricultural development potential. These easements typically prohibit residential or non-agricultural commercial development and uses that would hamper agricultural productivity. Conservation easements do not limit an owner's right to sell, bequeath, or otherwise transfer title, and they can help modernize operations, pay taxes, and facilitate generational succession.

Figure 2-25
Milk Production in Hundreds of Pounds, 1942 through 2002¹



¹Milk production in 2003 was 2,110,169.

Source: 1942-2003 Marin County Department of Agriculture, Weights and Measures.



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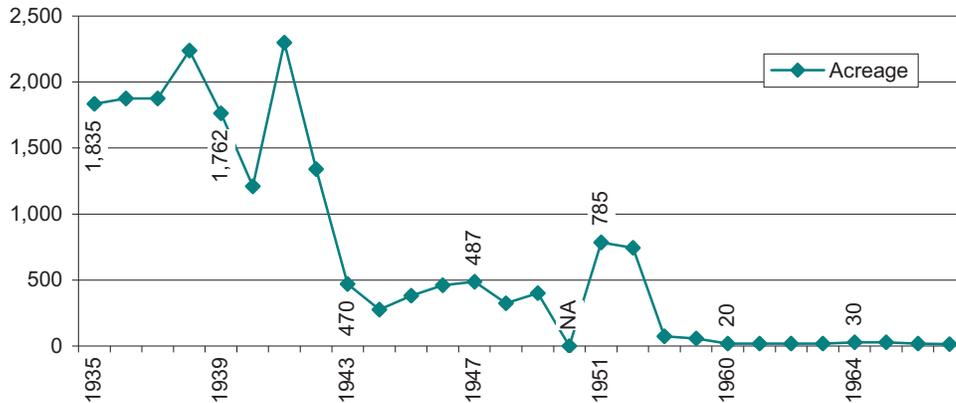
Key Trends and Issues

How has the county's agricultural production changed?

Milk continues to generate over half of gross agricultural revenues and beef production is increasing. Overall milk production has held constant since the early 1960s (see Figure 2-25). Although the number of Marin dairies has dropped from about 200 in the 1950s to about 30 in 2002, the remaining dairies have larger herds and higher per cow production. Specialty cheeses and organic milk, butter, and yogurt are providing new markets. Some operators have transitioned to raising replacement heifers for other dairies, while others have switched to, or lease land for, beef production. Beef ranching occupies the majority of agricultural land in the county, and grass-fed beef raised in Marin represents an emerging specialty market.

Row crops are making a comeback. Land for fruits, nuts, and vegetables has increased in recent years after a dramatic decline in the 1950s and 1960s; row crop acreage has steadily increased since 1991 (see Figures 2-26 and 2-27). In 1935, more than 1,800 acres of vegetables and nearly 1,000 acres of fruits and nuts were raised in Marin. In the 1930s and early 1940s, peas and artichokes – most of which were dry farmed – were important crops in coastal areas, with 2,000 acres of peas alone at the peak of production.

Figure 2-26 Vegetable Acreages 1935–1967



Source: 1935-1967 Marin County Department of Agriculture, Weights and Measures.



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Figure 2-27 Fruit, Nut, and Vegetable Acreages 1974–2003

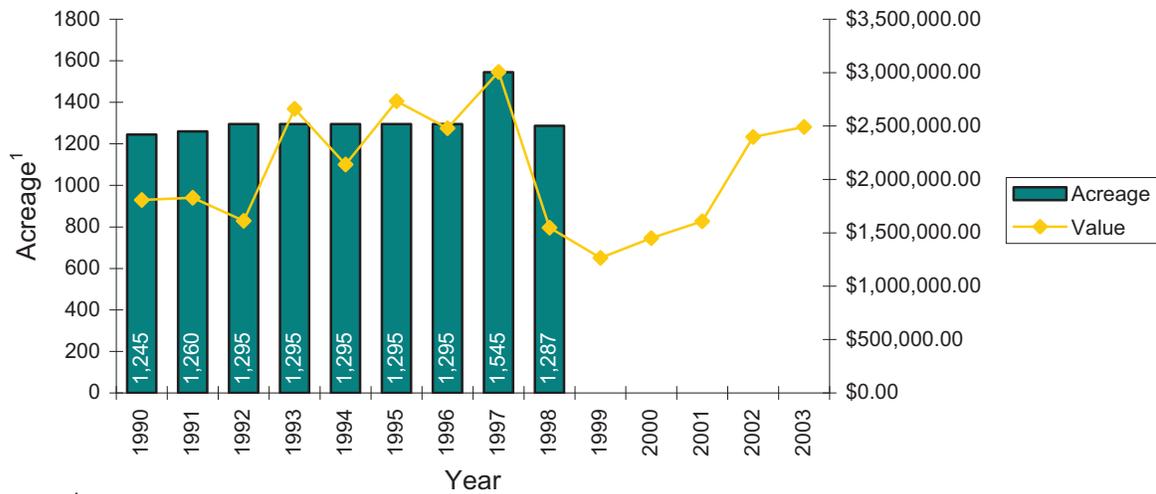


Note: There is no commercial nut acreage in Marin. Fruit, Nut, and Vegetable Acreages is a standardized category established by the California State Department of Food and Agriculture. Fruit acreage includes wine grapes.

Source: 1974-2002 Marin County Department of Agriculture, Weights and Measures.

Aquaculture remains a steady agricultural component. Shellfish farming has been practiced in the county since the mid-1800s, but has only been included in annual countywide crop reports since 1990. Figure 2-28 illustrates the production and dollar value of oysters, clams, and mussels in Marin County.

Figure 2-28 Acreage and Value of Aquaculture Products, 1990–2003



¹ Acreage data not available after 1998.

Source: 1990-2003 Marin County Department of Agriculture, Weights and Measures.



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Definition of Agriculture (land use): The breeding, raising, pasturing, and grazing of livestock, for the production of food and fiber; the breeding and raising of bees, fish, poultry, and other fowl; and the planting, raising, harvesting, and producing of agricultural, aquacultural, horticultural, and forestry crops.

Source: Marin County Development Code.

Organic agriculture is expanding. Organic operations have increased from 67 acres in 1990 to 1,560 acres in 2002, with almost 90% in dairying and livestock feed production. Organic crops also include vegetables, flowers, olives, dairy products, fruits, silage, and pasture. More than 20 operations were certified organic in the county in 2002 (compared with 4 in 1990), producing gross revenues of \$3.9 million.

Can local agriculture remain viable?

Low profit margins make agriculture a difficult business. A 2003 University of California Cooperative Extension (Farm Advisors Office) survey found that only 37% of farmers and ranchers responding considered their operations profitable. The cost of agricultural land has

increased far beyond what agricultural revenues can support. This trend has been exacerbated in recent years by the purchase of agricultural land for residential estates by non-agricultural buyers. While high land prices, long work hours, hard work, and more-lucrative off-farm employment discourage younger generations from continuing family agricultural operations, the study indicated that most agricultural operators desire to remain in their current business.

Residential demand is threatening agriculture. According to a 2003 study (see the Introduction, “Technical Background Reports and Other Supporting Documents”), agricultural activities are most

likely to be economically viable in Marin when land ownership costs and taxes are kept low as a result of very limited residential development and the use of protective agricultural easements. However, residential estate development is driving land ownership costs beyond farmers’ and ranchers’ ability to cover taxes, insurance, and maintenance. Unless residential development is limited to sizes reasonably related to agricultural production, estate development will continue to erode the county agricultural land base.



Definition of Agricultural Worker Housing: Any attached or detached dwelling unit used to house agricultural workers and their family members, including temporary mobile homes. For the purpose of calculating density, no more than one food preparation area shall be provided for each agricultural worker housing unit.

Source: Marin County Development Code.

Product diversity and changes in regulations can help.

New and different commodities can decrease vulnerability to market fluctuations, and value-added products can increase on-farm profits. County permitting regulations can be simplified to focus on health, safety, and environmental protection, and to coordinate the requirements of all agencies with jurisdiction over

agriculture. Simpler regulation can save time and money and encourage innovation. Zoning can be updated to better protect agriculture, and transfer of development rights potential can be enhanced through identification of receiver sites or by providing funding to purchase development rights.



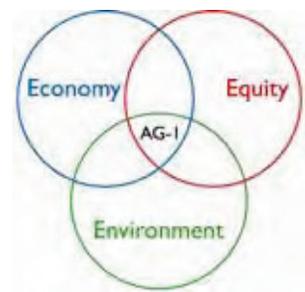
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Limited water supplies constrain agricultural diversification. Historically, agricultural practices in Marin have not created high demands on water supplies; however, the lack of groundwater locally may require limited surface water impoundments to provide irrigation for even a modest diversification of farming. Because most of Marin’s row crop farms are small (usually less than 10 acres) and some crops can be dry farmed, relatively small water developments can provide significant irrigation. Strict regulation by numerous agencies intended to ensure environmental protection as well as safeguard against impacts to aquatic habitats presents a challenge to developing agricultural water sources on many sites.

What Are the Desired Outcomes?

GOAL AG-1

Preservation of Agricultural Lands and Resources. Protect agricultural land by maintaining parcels large enough to sustain agricultural production, preventing conversion to non-agricultural uses, and prohibiting uses that are incompatible with long-term agricultural production. Preserve important soils, agricultural water sources, and forage to allow continued agricultural production on agricultural lands.



Policies

AG-1.1 Limit Residential Use. Maintain agricultural production as the principal use on agricultural lands by limiting residential development to that which is reasonably related to agriculture.

AG-1.2 Encourage Contractual Protection. Facilitate agricultural conservation easements, land conservation and Farmland Security Zone contracts, and transfer of development rights between willing owners when used to preserve agricultural lands and resources.

AG-1.3 Preserve Agricultural Zoning. Maintain very low density agricultural zoning in the Inland Rural and Coastal corridors to support land-extensive agricultural production and discourage conversion to non-agricultural uses.

AG-1.4 Limit Non-Agricultural Zoning. Apply non-agricultural zoning only in areas where conflict with agricultural uses will be minimized, and ensure that development standards preserve and enhance nearby agricultural uses.



Agricultural Easements
Agricultural easements help to preserve not only the character of Marin County but also its land’s ability to supply food, fiber, and other environmental goods and services. Adding 32,000 acres of easements would more than double the protected biological capacity of pasture and cropland in Marin County.



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- AG-1.5 Restrict Subdivision of Agricultural Lands Within the Coastal, Inland Rural, and Baylands Corridors.** Require that the subdivision of agricultural lands shall only be allowed upon demonstration that long-term productivity on each parcel created would be enhanced as a result of subdivision. In the City-Centered Corridor, subdivision of agricultural lands shall only be allowed upon demonstration that the overall agricultural productivity of the subdivided parcels would not be reduced as a result of the subdivision. In considering subdivisions in all corridors, the County may approve fewer parcels than the maximum number of parcels allowed by applicable Countywide Plan land use designation and by the Development Code, based on site characteristics such as topography, soil, water availability, and the capacity to sustain viable agricultural operations.
- AG-1.6 Limit Non-Agricultural Development.** Limit non-agricultural development in the Agricultural Production Zone to allowed residential and accessory uses ancillary to and compatible with agricultural production. Require dwellings and other non-agricultural development to be limited in size and grouped together in building envelopes covering no more than 5% of the property or as determined through a site-specific analysis of agricultural and environmental constraints and resources, with the remainder preserved for agricultural production. Residential and non-agricultural development on very large parcels may be limited to less than 5% of the land area.
- AG-1.7 Limit Ancillary Non-Agricultural Land Uses.** Require non-agricultural land uses on agricultural lands to be ancillary to and compatible with agricultural land uses, agricultural production, and the rural character of the area, and to enhance the economic viability of agricultural operations.
- AG-1.8 Maintain the Agricultural Land Base.** Encourage private and public owners of lands that have traditionally been used for agriculture to keep land in agricultural use by continuing existing agricultural uses, developing compatible new agricultural uses, and/or leasing lands to agricultural operators.
- AG-1.9 Continue Agricultural Uses on Federal Land.** Encourage continuation of agricultural operations and uses in the pastoral zones of the Point Reyes National Seashore and the Golden Gate National Recreation Area through long-term tenure agreements (leases) with agricultural operators.
- AG-1.10 Protect Productive Agricultural Soils.** Discourage or prohibit non-agricultural buildings, impermeable surfaces, or other non-agricultural uses on soils classified by the Natural Resources Conservation Service as Prime Farmland soils or Farmland soils of Statewide Importance.
- AG-1.11 Preserve Rangeland Forage.** Discourage the conversion of rangeland to non-agricultural uses.
- AG-1.12 Support Sustainable Water Supplies.** Explore opportunities to provide sustainable water supplies, such as water conservation, collection, treatment, and reuse, to support



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small-scale agricultural diversification in a manner that does not adversely affect aquatic or other resources.

AG-1.13 **Protect Water Quality to Keep Mariculture Viable.** Protect and enhance the quality of waters used for mariculture through cooperation with other stakeholders, and outreach and education.

Why is this important?

Agriculture can continue and thrive only if the land that supports it is protected.

Environment: Working landscapes that produce food and other agricultural products maintain open areas with living plants, which absorb greenhouse gas emissions. Also, the aesthetic qualities that distinguish the local landscape are reinforced.

Economy: Preserving existing agricultural land and resources is vital to ensuring that agriculture remains an important contributor to a diverse and healthy economy in Marin County. County residents employed in the agricultural sector benefit from accessible, stable jobs.

Equity: Local agricultural production provides consumers with additional, often healthier food choices, and strengthens the cultural heritage and sense of community that stem from a working landscape.

How will results be achieved?

Implementing Programs

AG-1.a ***Residential Building Sizes in Agricultural Areas.*** The size of residential structures has been or will be dealt with in community plans or specific plans. Since most agricultural areas are located outside of community plan boundaries and no specific plans are anticipated in agricultural areas, standards concerning residential building sizes are covered in this program. The primary purpose of this program is to ensure that lands designated for agricultural use do not become de facto converted to residential use, thereby losing the long-term productivity of such lands. It is also a purpose of this program to enable the intergenerational transfer of agricultural lands within farm families so that the long-term productivity of such lands is maintained.

- a. Residential development shall not be allowed to diminish current or future agricultural use of the property or convert it to primarily residential use.
- b. Agricultural worker housing, up to 540 square feet of garage space for each dwelling unit, agricultural accessory structures and up to 500 square feet of office space used as a home occupation in connection with the agricultural operation on the property shall be excluded from this policy.
- c. Any proposed residential development above 4,000 square feet shall be subject to design review and must ensure that the mass and scale of new or expanded structures respect environmental site constraints and the character of the



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surrounding area. Such development must be compatible with ridge protection policies (see DES-4.e) and avoid tree-cutting and grading wherever possible.

Such proposed residential development is also subject to discretionary review. The County shall exercise its discretion in light of some or all of the following criteria and for the purpose of ensuring that the parcel does not de facto convert to residential use:

1. The applicant's history of production agriculture.
 2. How the long term agricultural use of the property will be preserved – for example, whether there is an existing or proposed dedication or sale of permanent agricultural easements or other similar protective agricultural restrictions such as Williamson Act contract or farmland security zone.
 3. Whether long term capital investment in agriculture and related infrastructure, such as fencing, processing facilities, market mechanisms, agricultural worker housing or agricultural leasing opportunities have been established or are proposed to be established.
 4. Whether sound land stewardship practices, such as organic certification, riparian habitat restoration, water recharge projects, fish-friendly farming practices, or erosion control measures, have been or will be implemented.
 5. Whether the proposed residence will facilitate the ongoing viability of agriculture such as through the intergenerational transfer of existing agricultural operations.
- d. In no event shall a single-family residence subject to these provisions exceed 7,000 square feet in size.

The square footage limitations noted in the above criteria represent potential maximum dwelling unit sizes and do not establish a mandatory entitlement or guaranteed right to development.

AG-1.b

Require Production and Stewardship Plans. Agricultural Production and Stewardship Plans shall be prepared and submitted for residential and other non-agricultural development as required by the Development Code. The purpose of these plans is to ensure that long-term agricultural productivity will occur and will substantially contribute to Marin's agricultural industry. Such plans shall clearly identify and describe existing and planned agricultural uses for the property, explain in detail their implementation, identify on-site resources and agricultural infrastructure, identify product markets and processing facilities (if appropriate), and demonstrate how the planned agricultural uses substantially contribute to Marin's agricultural industry. Agricultural Production and Stewardship Plans shall provide evidence that at least 90% of the usable land will remain in agricultural production and identify stewardship



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activities to be undertaken to protect agricultural and natural resources. Agricultural Production and Stewardship Plans shall be prepared by qualified professionals with appropriate expertise in range management and land stewardship. The approval of development proposals including Agricultural Production and Stewardship Plans shall include conditions ensuring the proper, long-term implementation of the plan.

The requirement for an Agricultural Production and Stewardship Plan may be waived for dwelling units and residential accessory buildings or structures occupied or used by the property owner(s) or lessee who are directly engaged in the production of agricultural commodities for commercial purposes on the property and agricultural worker housing. It may also be waived for non-agricultural land uses that are determined by the County to be ancillary to and compatible with agricultural production as the primary use of the land. Waivers may be granted when the Review Authority finds that the proposal will not diminish current or future agricultural use of the property or convert it to primarily residential use, as evidenced by bona fide commercial agricultural production on the property, and agricultural infrastructure, such as fencing, processing facilities, marketing mechanisms, agricultural worker housing, or agricultural land leasing opportunities, has been established or will be enhanced. Criteria and standards for defining commercial agricultural production should be developed so that Agricultural Production and Stewardship plans can differentiate between commercial agricultural production and agricultural uses accessory to residential or other non-agricultural uses.

Preparation of an Agricultural Production and Stewardship Plan (APSP) is not intended for applicants with a long history of production agriculture. Projects subject to the potential requirement of preparing an Agricultural and Stewardship Plan should be referred to the Agricultural Review Board for analysis and a recommendation. The Agricultural Review Board should also be requested to periodically review and evaluate the effectiveness of the Agricultural Production and Stewardship Plan program.

- AG-1.c** ***Consider Incentives for the Voluntary Merger of Parcels on Lands Protected by Agricultural Conservation Easements.*** Consider whether it is appropriate for agricultural conservation easements to include incentives for the voluntary merger of contiguously owned agricultural lands.
- AG-1.d** ***Standardize Conservation Easements.*** Modify the format for agricultural conservation easements accepted and held by the County to match that of the Marin Agricultural Land Trust to ensure that County agricultural conservation easements meet current industry standards.
- AG-1.e** ***Facilitate Land Conservation Contracts.*** Encourage agricultural landowners to contract with the County on a voluntary basis through Williamson Act and Farmland Security Zone procedures to restrict the use of their land in exchange for taxation of the land based on agricultural use. Strengthen future Williamson Act contracts by prohibiting subdivision of the land for the duration of these contracts.



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- AG-1.f** ***Review the TDR Program.*** Evaluate the potential for an expanded Transfer of Development Rights program to achieve effective protection of agricultural lands and the viability of existing agricultural operations. The Community Development Agency in collaboration with the Marin Agricultural Land Trust will seek funding to prepare a feasibility study to include, but not be limited to, the following:
- a. Evaluate the potential for donor and receiver sites within the unincorporated county, as well as consider the feasibility of potential receiver sites within cities and towns in Marin.
 - b. Identify possible criteria for identifying donor and receiver sites, and recommend procedures for the resale and transfer of purchased residential development rights.
 - c. Evaluate the feasibility of the Marin Agricultural Land Trust or another nonprofit entity to administer or participate in an expanded program.
 - d. The feasibility study should be prepared by qualified consultants with expertise in developing and implementing TDR programs.

The above information may also be developed in conjunction with the processing of a TDR project pursuant to the Marin County Development Code.

- AG-1.g** ***Revise Agricultural Zoning Districts.*** Modify existing agricultural zoning districts to create a more uniform approach to preservation of agricultural lands, development standards, and allowance of ancillary and compatible non-agricultural uses, and to limit incompatible non-agricultural commercial uses. The principal use of agriculturally zoned land shall be agricultural production, with non-agricultural uses limited to necessary residential uses and compatible ancillary uses that enhance farm income.

Consolidate suitable agricultural lands in the Inland Rural Corridor into an effective agricultural zoning district similar to the Agricultural Production Zoning District, and create compatible zoning districts to accommodate lands currently zoned for, but not suited for, agriculture as a principal use.

Agricultural Production Zoning (APZ), or a similar zoning district, shall apply to lands in the Inland Rural Corridor suitable for land-intensive or land-extensive agricultural productivity, as well as on soils classified as Prime Farmland or Farmland of Statewide Importance capable of supporting production agriculture. The purpose of this zoning district shall be to preserve lands within the zone for agricultural uses and support continued agricultural activities. The principal use of these lands shall be agricultural, and any development shall be accessory, incidental, and in support of agricultural production.

Agricultural Residential Planned District Zoning (ARP) shall apply to lands adjacent to residential areas, and at the edges of Agricultural Production Zones in the Inland Rural and Coastal corridors that have potential for agricultural production. This district may



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also be applied to lands with historic or potential agricultural uses within the City-Centered Corridor and in locations that function as community separators or greenbelts. This district is intended to protect agriculture but also allows residential and compatible commercial uses in areas that are transitional between residential and agricultural production uses.

Residential Agricultural Zoning District (RAZ) shall apply in rural areas within the City-Centered, Inland Rural, Coastal, and Baylands corridors to accommodate typical rural uses including small-scale row crop production, 4H projects and associated uses, along with residential uses and compatible commercial uses.

Woodland Conservation Zoning District (WCZ) shall apply to selected lands currently in agricultural zoning districts that have a very dense native tree cover. Aerial photography shall be utilized to determine the extent of canopy cover characterizing properties to be included in this zoning district.

- AG-1.h** *Assess ARP Zoning.* Conduct an assessment of lands within the ARP District to determine which are appropriate for agricultural production. Consider rezoning those that are not located near towns, villages, or the City-Centered Corridor, and are physically and geographically suited for agricultural production to an agricultural zoning district similar to the existing APZ District. (See Program AG-1.g, above.)
- AG-1.i** *Assess Density in Agricultural Districts.* Conduct an assessment of lands within A-20 or smaller zoning districts to determine which are appropriate for agricultural production. Consider rezoning those that are not suitable for agricultural production to the RAZ or ARP districts.
- AG-1.j** *Uphold Right-to-Farm Ordinance.* Continue to implement the right-to-farm ordinance that protects agricultural and mariculture operations from nuisance complaints by adjacent non-agricultural and non-mariculture property owners regarding allowable agricultural procedures and maricultural practices. The ordinance has established a grievance procedure to address the needs of all concerned.
- AG-1.k** *Define Non-Agricultural Ancillary Uses.* Develop criteria and standards to identify compatible ancillary and subordinate land uses, such as small-scale environmental and agricultural tourism, that enhance the economic viability of agricultural operations.
- AG-1.l** *Preserve Agricultural Lands and Uses.* Continue to use a combination of agricultural zoning, conservation easements, and agricultural preserve contracts with landowners to preserve open agricultural land, and to sustain and encourage dairy and ranching operations.
- AG-1.m** *Encourage Agricultural Leasing.* Explore a mix of incentives and guidelines to non-farming landowners to encourage leasing of all or part of their land to farmers and ranchers, as appropriate.



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AG-1.n *Standardize Sustainable Agricultural Indicators.* Establish sustainable agriculture indicators, such as increases in organic and other ecologically sound farming and ranching, to assist in determining farm activities that protect agricultural land, promote farm economic viability, and further social activities necessary to sustain agriculture.

AG-1.o *Map Important Soils.* Identify on digital soils maps the most suitable soils for row crop production. These include soils classified as Prime Farmland Soils and Farmland Soils of Statewide Importance, and soils with similar physical and chemical characteristics within other soil map units. Use this mapping to identify these soils in relation to proposed construction of buildings, impermeable surfaces, or other uses that would prevent farming on these soils.



“The soil is the great connector of our lives, the source and destination of all.”

– Wendell Berry, 1977

AG-1.p *Evaluate Small-Scale Water Development.*

Explore means to encourage water conservation, collection, treatment, and re-use and development of other potential small-scale water sources for agriculture that do not adversely affect aquatic or other environmental resources. (See Water Resources, Program WR-3.a in this Element and programs under Goal PFS-2 in the Public Facilities and Services Section, Built Environment Element.)

AG-1.q *Support Irrigation Alternatives.* Support the efforts of farmers and ranchers in developing water sources for agricultural diversification. Promote use of

recycled water for irrigation and other nonpotable uses. Promote investment in decentralized solutions such as small-scale waste treatment and rainwater catchments (on a community scale). Assess and implement cost-effective use of recycled water to irrigate County-owned properties, and encourage its use at other public and private facilities. (See also Natural Systems and Agriculture Element, Agriculture and Food Policy AG-1.12 and Program AG-1.n.)

AG-1.r *Provide Agricultural Industry Support.* Encourage agencies to provide online Irrigation Scheduling calculators, a California Irrigation Management Information System (CIMIS) Hotline to provide current reference evapotranspiration data, and a pump and system efficiency test program to determine how efficiently the irrigation system is applying water to crops.

AG-1.s *Maintain Up-to-Date Agricultural Statistics.* Monitor and maintain up-to-date statistics on agricultural production values, land costs, expenses, and other data affecting the agricultural economy.

AG-1.t *Pursue Preparation of a Hillside Agricultural Grading Program.* Continue to evaluate the feasibility of preparing and enacting a hillside agricultural grading program to include regulations, landowner education, and incentives to address the sensitivity of



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streams to agricultural grading on adjacent steep slopes. Pertinent information could be provided through the Resource Conservation District, Agricultural Commissioner’s Office, or the University of California Cooperative Extension, or as part of the Natural Resource Information Program called for in Program BIO-1.c.

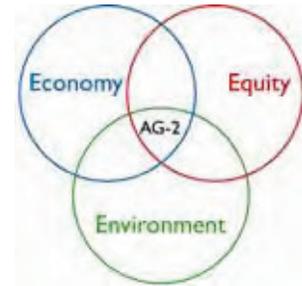
What Are the Desired Outcomes?

GOAL AG-2

Improved Agricultural Viability. Enhance the viability of Marin County farms, ranches, and agricultural industries.

Policies

- AG-2.1** **Promote Organic Certification.** Support Marin Organic Certified Agriculture (MOCA) to perform local organic farm certification to comply with National Organic Program (NOP) standards.
- AG-2.2** **Support Local, Organic, and Grass-Fed Agriculture.** Encourage and protect local, organic, grass-fed, and other ecologically sound agricultural practices, such as dry farming, including field crops and animal agriculture, as a means to increase on-farm income, diversify Marin agriculture, and provide healthy food for the local supply.
- AG-2.3** **Support Small-Scale Diversification.** Diversify agricultural uses and products on a small percentage of agricultural lands to complement existing traditional uses, help ensure the continued economic viability of the county agricultural industry, and provide increased food security.
- AG-2.4** **Encourage Agricultural Processing.** Encourage processing and distribution of locally produced foods to support local food security and strengthen Marin’s agricultural industry.
- AG-2.5** **Market Local Products.** Support the efforts of local farmers and ranchers to develop more diverse and profitable markets related to agriculture, including a permanent public market and direct marketing to local and regional restaurants for Marin County agricultural products.



Sustainable Farming

Sustainable farming practices such as organic and dry farming can both reduce a farm’s demand for resources and preserve its ability to provide food in the future. One hundred acres of farmland that relies heavily on artificial fertilizer, for example, requires an energy footprint of almost 10 global acres just to support its fertilizer consumption. Conventional farming and pasture management can also damage soil fertility, reducing the future biocapacity of that land.



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- AG-2.6** **Promote Small-Scale Crop Production.** Encourage small-scale row crop production that contributes to local food security on appropriate sites throughout the county.
- AG-2.7** **Preserve and Promote Mariculture.** Support maricultural usage of tidelands and onshore production areas. The need for mariculture sites in coastal waters should be aligned with the need to provide for other uses, such as commercial fishing, recreational clamming and boating, and protection of coastal native wildlife species, water, and visual resources.
- AG-2.8** **Avoid Introduction of Invasive Mariculture Species.** Encourage State and federal regulatory agencies that permit mariculture activities to prevent the introduction of invasive species.
- AG-2.9** **Support Livestock Production Programs.** Assist ranchers in using nonlethal methods to protect herd animals from predators.
- AG-2.10** **Increase Knowledge of Agriculture.** Raise the level of public awareness and understanding of Marin County agriculture, including its ecological, economic, open space, and cultural value, and its importance to local food security.
- AG-2.11** **Facilitate the Intergenerational Transfer of Agricultural Land.** Encourage and support transfer through inheritance, sale, or lease of agricultural properties to future generations of ranchers and farmers.



“The farm is a place to live. The criterion of success is a harmonious balance between plants, animals, and people; between the domestic and the wild; between utility and beauty.”

— Aldo Leopold

Why is this important?

Encouraging and supporting Marin agricultural producers in developing specialty products and markets will help to keep farming viable.

Environment: Viable agricultural operations provide habitats for many native plant and animal species, and have many fewer negative impacts to the environment than alternative types of development that could replace non-viable farms and ranches.

Economy: Diversification and local processing contribute to the economic viability of Marin’s agricultural industry by ensuring the continuation of the farming and ranching community.

Equity: Encouraging new generations of farmers and ranchers to retain land in active agricultural production helps to keep Marin’s historic agricultural heritage alive while providing food security.



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How will results be achieved?

Implementing Programs

AG-2.a *Promote Organic Products.* Provide adequate staffing to respond to expected annual growth for all Marin producers and handlers that wish to obtain organic certification. Develop incentives to encourage farmers and ranchers to transition from conventional farming practices to organic, grass-fed, or other ecologically sound techniques such as dry farming, or “beyond organic” (addressing ethical criteria not included in USDA organic standards).

AG-2.b *Support Sustainable Agriculture.* Work with University of California Cooperative Extension (Farm Advisor) and Marin County Agricultural Commissioner’s staff to assist producers with development, diversification, and marketing of Marin’s sustainable agricultural products.

AG-2.c *Review Existing Development Code Criteria and Standards.* Review and amend the Development Code as appropriate to include new and/or modified criteria and standards for agricultural processing and sales while limiting uses that are not compatible with sustainable agriculture. Consideration should be given to Development Code revisions that ensure agricultural processing and sales-related uses will not result in any significant impacts, such as those related to traffic, noise, and views. Continue to support the efforts of the UC Cooperative Extension, Marin Resource Conservation District, Marin County Farm Bureau, Marin Agricultural Land Trust, Marin Organic, Marin County Agricultural Commissioner, and Marin County Farmer’s Market to plan for agriculture in Marin and ensure that the new criteria and standards are consistent with the County’s goals of improved agricultural viability and preservation and restoration of the natural environment.

AG-2.d *Expedite Permitting.* Continue to simplify and expedite the permitting process for bona fide agricultural enterprises.

AG-2.e *Train Staff.* Educate County staff regarding the needs, benefits, and operational aspects of production agriculture, and how these are affected by the County permitting process.

AG-2.f *Permit Special Signage.* Allow agricultural producers to use small, tasteful, on-site signage to advertise their products and services, and consider the establishment of a community based program of discreet, off-site signs for directing the public to on-farm sales areas.



Integrated Pest Management

Controlling pests in a safe, environmentally sound manner can have multiple benefits for Marin’s ecosystems and public health.

Learn more at:

www.ourwaterourworld.org.

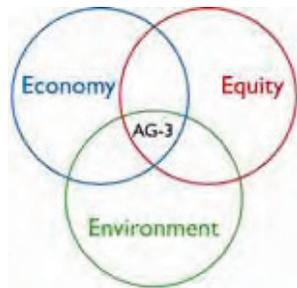


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- AG-2.g** *Consider Mariculture Zoning.* Amend the Development Code to include mariculture as a conditional use in the C-RSP or other zoning districts as appropriate for lands located along the shoreline of Tomales Bay.
- AG-2.h** *Conduct a Cumulative Analysis of Mariculture Operations.* Encourage the California Department of Fish and Game, U.S. Fish and Wildlife Service, or any other qualified entity to conduct a cumulative analysis of mariculture operations.
- AG-2.i** *Support County Livestock Protection Program.* Continue to support the Livestock Protection Program, and provide livestock ranchers with technical assistance and funding to implement nonlethal predator control methods.
- AG-2.j** *Promote Local Foods.* Promote the distribution of local foods through the Community Food Bank. Continue to offer farmers' market food coupons to food stamp and WIC recipients but increase the individual allotment.
- AG-2.k** *Promote Agriculture Education in Schools.* Support sustainable agriculture education, such as the Food for Thought curricula, in local schools, including the College of Marin.
- AG-2.l** *Raise Agricultural Awareness.* Promote public appreciation of agriculture by supporting organizations and agencies that carry out educational programs.
- AG-2.m** *Draw Attention to Agricultural Areas.* Identify agricultural areas with placement of appropriate directional signs in an effort to inform residents and visitors of the importance of agriculture in Marin.
- AG-2.n** *Support Food and Agriculture Assessment Panel.* Assess the effects of local, State, and federal policies on agriculture, and determine future policy directions.

What Are the Desired Outcomes?

GOAL AG-3



Community Food Security. Increase the diversity of locally produced foods to give residents greater access to a healthy, nutritionally adequate diet.

Policies

AG-3.1 Support Local Food Production. Promote local food production in agricultural zoning districts, as well as on appropriate urban and suburban lands.



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AG-3.2 Promote Local and Organic Food.
Increase consumer appreciation of, and access to, locally produced and organic food and agricultural products.



AG-3.3 Enhance Food Security Education.
Promote public awareness and education about the importance of locally produced food and food security.

Why is this important?

Growing food locally offers many benefits to growers and consumers.

Environment: Locally grown food requires less energy and resources to transport, thus reducing greenhouse gas emissions and decreasing the size of our ecological footprint.

Economy: Buying local products supports the local economy; encourages efforts to develop diversified agricultural operations, including on-farm processing; and ensures that food is available regardless of trade and other issues that can affect supplies.

Equity: Locally available, fresh, organic food provides numerous health benefits and can be more readily accessed in the event of an emergency.

How will results be achieved?

Implementing Programs

AG-3.a Encourage Community Gardens. Allow community gardens on County property that is underutilized or where such use would complement current use, and amend the Development Code to require space for on-site community gardens in new residential developments of 10 units or greater. Work with community-based organizations to manage such gardens using ecologically sound techniques and to provide on-site water if available (find more information at www.communitygarden.org).



Local Food

The food that Marin residents eat doesn't only place demand on cropland. Food products that travel many "food miles" from farm to dinner plate can have an energy footprint much higher than the same products produced locally. Flying a single bottle of Australian wine to the United States demands an energy footprint of almost 250 square feet.



"There is no love sincerer than the love of food."

— George Bernard Shaw

"Health and cheerfulness mutually beget each other."

— Joseph Addison



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*“He who hath
good health is young.”*

– Proverb



*“Nature has given to us
the seeds of knowledge,
but not knowledge itself.”*

– Seneca

AG-3.b *Provide Community Education.* Provide community education regarding organic and other ecologically sound techniques of farming and the benefits of its produce. Raise awareness of farmers’ market dates and times.

AG-3.c *Promote Edible Landscaping.* Encourage fruit trees or other edible landscaping when possible in new development and when renewing planting on County property where appropriate. Include the replacement of irrigated ornamentals with drought-resistant edible plants, as appropriate.

AG-3.d *Use Locally Grown and/or Organic Foods in County Services.* Develop and adopt a food policy and procurement program that incorporates organic and locally grown foods into cafeteria services, the jail, and County-sponsored events.

AG-3.e *Promote Organic Food in Schools.* Support school programs, including on-site gardens, that incorporate organic foods into school meals.

AG-3.f *Support Local Groups.* Support the efforts of local groups such as the Marin Food Policy Council that make recommendations and support forums addressing sustainable food systems.



NATURAL SYSTEMS & AGRICULTURE ELEMENT

Figure 2-29 Relationships of Goals to Guiding Principles

This figure illustrates the relationships of each goal in this Section to the Guiding Principles.

Goals	Guiding Principles											
	1. Link equity, economy, and the environment locally, regionally, and globally.	2. Minimize the use of finite resources and use all resources efficiently and effectively.	3. Reduce the use and minimize the release of hazardous materials.	4. Reduce greenhouse gas emissions that contribute to global warming.	5. Preserve our natural assets.	6. Protect our agricultural assets.	7. Provide efficient and effective transportation.	8. Supply housing affordable to the full range of our workforce and diverse community.	9. Foster businesses that create economic, environmental, and social benefits.	10. Educate and prepare our workforce and residents.	11. Cultivate ethnic, cultural, and socioeconomic diversity.	12. Support public health, safety, and social justice.
AG-1 Preservation of Agricultural Lands and Resources	•			•	•	•						
AG-2 Improved Agricultural Viability	•			•	•	•			•			
AG-3 Community Food Security	•			•	•	•			•		•	•



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How Will Success Be Measured?

Indicator Monitoring

Nonbinding indicators, benchmarks, and targets¹ will help to measure and evaluate progress. This process will also provide a context in which to consider the need for new or revised implementation measures.

Indicators	Benchmarks	Targets
Acres preserved with agricultural easements.	28,377 acres preserved in 2000.	Increase by 25,000 acres by 2010 and by 12,500 additional acres by 2015.
Acres of land farmed organically.	357 acres in 2000.	Increase by 1,500% by 2010 and 1,700% by 2015.
Annual sales of identified Marin farmers' markets: Civic Center, Downtown San Rafael, Novato, and Fairfax.	\$9,860,000 in 2005.	Increase annual sales 10% by 2010 and 15% by 2015.

¹Many factors beyond Marin County government control, including adequate funding and staff resources, may affect the estimated time frame for achieving targets and program implementation.



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Program Implementation

The following table summarizes responsibilities, potential funding priorities, and estimated time frames for proposed implementation programs. Program implementation within the estimated time frame¹ will be dependent upon the availability of adequate funding and staff resources.

**Figure 2-30
Agriculture and Food Program Implementation**

Programs	Responsibility	Potential Funding	Priority	Time Frame
AG-1.a - Residential Building Sizes in Agricultural Areas.	CDA	Existing budget	High	Short term
AG-1.b - Require Production and Stewardship Plans.	CDA	Existing budget	High	Ongoing
AG-1.c - Consider Incentives for the Voluntary Merger of Parcels on Lands Protected by Agricultural Conservation Easements.	CDA	Existing budget	Low	Med. term
AG-1.d - Standardize Conservation Easements.	CDA, County Counsel, UCCE-FA ²	Existing budget	Low	Med. term
AG-1.e - Facilitate Land Conservation Contracts.	CDA, Assessor's Office	Existing budget	Low	Med. term
AG-1.f - Review the TDR Program.	CDA	Existing budget and may require additional grants or revenue ³	Medium	Short term
AG-1.g - Revise Agricultural Zoning Districts.	CDA	Existing budget and may require additional grants or revenue ³	High	Med. term
AG-1.h - Assess ARP Zoning.	CDA	Existing budget and may require additional grants or revenue ³	Medium	Long term
AG-1.i - Assess Density in Agricultural Districts.	CDA	Existing budget	Medium	Long term

¹Time frames include: Immediate (0-1 years); Short term (1-4 years); Med. term (4-7 years); Long term (over 7 years); and Ongoing.

²UCCE-FA: University of California Cooperative Extension, FA: Farm Advisor.

³Completion of this task is dependent on acquiring additional funding. Consequently, funding availability could lengthen or shorten the time frame and ultimate implementation of this program.



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Programs	Responsibility	Potential Funding	Priority	Time Frame
AG-1.j - Uphold Right-to-Farm Ordinance.	CDA or Agricultural Commissioner	Existing budget	High	Ongoing
AG-1.k - Define Non-Agricultural Ancillary Uses.	CDA, UCCE-FA	Existing budget	High	Immediate
AG-1.l - Preserve Agricultural Lands and Uses.	CDA, Assessor's Office, MALT	Existing budget	High	Ongoing
AG-1.m - Encourage Agricultural Leasing.	CDA or Agricultural Commissioner, UCCE-FA	Existing budget	High	Ongoing
AG-1.n - Standardize Sustainable Agricultural Indicators.	Agricultural Commissioner, UCCE-FA	Existing budget	High	Med. term
AG-1.o - Map Important Soils.	NRCS, CDA, UCCE-FA, Agricultural Commissioner	Existing budget and may require additional grants or revenue ³	High	Immediate
AG-1.p - Evaluate Small-Scale Water Development.	Agricultural Commissioner, UCCE-FA, Water Districts, RCD	Existing budget and may require additional grants or revenue ³	Medium	Med. term
AG-1.q - Support Irrigation Alternatives.	Agricultural Commissioner, UCCE-FA, Water Districts, RCD	Existing budget and may require additional grants or revenue ³	Medium	Long term
AG-1.r - Provide Agricultural Industry Support.	Agricultural Commissioner, UCCE-FA	Will require additional grants or revenue ³	Medium	Long term
AG-1.s - Maintain Up-to-Date Agricultural Statistics.	Agricultural Commissioner, UCCE-FA, CDA	Existing budget and may require additional grants or revenue ³	Medium	Long term
AG-1.t - Pursue Preparation of a Hillside Agricultural Grading Program.	Agricultural Commissioner	Existing budget and may require additional grants or revenue ³	Medium	Short term
AG-2.a - Promote Organic Products.	Agricultural Commissioner, MOCA, UCCE-FA, CBO's	Existing budget and may require additional grants or revenue ³	High	Ongoing
AG-2.b - Support Sustainable Agriculture.	Agricultural Commissioner, MOCA, UCCE-FA, CBO's	Existing budget and may require additional grants or revenue ³	High	Ongoing



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Programs	Responsibility	Potential Funding	Priority	Time Frame
AG-2.c - Review Existing Development Code Criteria and Standards.	CDA	Existing budget	High	Short term
AG-2.d - Expedite Permitting.	CDA or Agricultural Commissioner, UCCE-FA	Existing budget	High	Ongoing
AG-2.e - Train Staff.	CDA, UCCE-FA, Agricultural Commissioner	Existing budget and may require additional grants or revenue ³	High	Ongoing
AG-2.f - Permit Special Signage.	CDA	Existing budget and may require additional grants or revenue ³	Low	Med. term
AG-2.g - Consider Mariculture Zoning.	CDA	Existing budget and may require additional grants or revenue ³	Medium	Med. term
AG-2.h - Conduct a Cumulative Analysis of Mariculture Operations.	CDA, USFWS, UCCE-SeaGrant, other Resource Protection Agencies	Will require additional grants or revenue ³	Medium	Long term
AG-2.i - Support County Livestock Protection Program.	Agricultural Commissioner	Existing budget	High	Ongoing
AG-2.j - Promote Local Foods.	H&HS, Marin Food Policy Council, CBO's, UCCE-FA	Existing budget and may require additional grants or revenue ³	Medium	Med. term
AG-2.k - Promote Agriculture Education in Schools.	Marin Food Policy Council, School Districts, COM, CBO's, UCCE-FA, Agricultural Commissioner	Existing budgets and may require additional grants or revenue ³	High	Ongoing
AG-2.l - Raise Agricultural Awareness.	UCCE-FA, Marin Economic Commission (MEC), Agricultural Commissioner, CBO's	Existing budget	High	Ongoing
AG-2.m - Draw Attention to Agricultural Areas.	UCCE-FA, Agricultural Commissioner, CBO's	Existing budget and may require additional grants or revenue ³	High	Ongoing



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Programs	Responsibility	Potential Funding	Priority	Time Frame
AG-2.n - Support Food and Agriculture Assessment Panel.	Agricultural Commissioner, UCCE-FA	Will require additional grants or revenue ³	Medium	Med. Term
AG-3.a - Encourage Community Gardens.	CDA, Agricultural Commissioner, UCCE-FA, DPW, MCOSED	Existing budget	Low	Ongoing
AG-3.b - Provide Community Education.	UCCE-FA, Agricultural Commissioner, CBO's	Existing budget and may require additional grants or revenue ³	Medium	Ongoing
AG-3.c - Promote Edible Landscaping.	CDA, Agricultural Commissioner, UCCE-FA, MCOSED	Existing budget	Low	Ongoing
AG-3.d - Use Locally Grown and/or Organic Foods in County Services.	Cultural Services, Agricultural Commissioner, UCCE-FA	Existing budget and may require additional grants or revenues, as well as Incentive Payments to Growers	High	Ongoing
AG-3.e - Promote Organic Food in Schools.	UCCE-FA, Agricultural Commissioner, Marin Food Policy Council, CBO's	Existing budget and may require additional grants or revenue ³	Medium	Ongoing
AG-3.f - Support Local Groups.	Agricultural Commissioner, CBO's, UCCE-FA	Existing budget and may require additional grants or revenue ³	Medium	Ongoing