

Investment Area Guidelines: AGRICULTURAL DIVERSIFICATION

Commercial Horticulture, Commercial Aquaculture, Timber



Questions concerning these guidelines should be directed to the Governor's Office of Agricultural Policy at (502) 564-4627. Applications to administer CAIP must be directed through the local County Agricultural Development Council(s).

Funded participants shall adhere to all local, state, and federal rules and regulations.

A. Commercial Horticulture Production

Includes fruits, herbs, mushrooms, ornamentals, sod, sweet sorghum and vegetables

Eligible Cost-share Items:

1. Seeds, seedlings, spores, cuttings, vegetable transplants potted, rooted cuttings, and scion/rootstock combinations in conformance with UK recommendations.

In consultation with Corporative Extension Services may include test varieties as part of a demonstration.

Reimbursement is also available for grapevine cuttings potted and rooted cuttings, scion/rootstock combinations that are on the Grapevine Cultivar Requirements List (Appendix A), reviewed annually by the State Viticulturalist.

2. Transplanting or cultivation equipment (not self-propelled)
3. Soil, media for plant production
4. Containers for starting or growing plants
5. Plastic or plasticulture supplies and plastic laying equipment; materials, as allowed in the National List (205.600 of the USDA Organic Standards), for suppression of weed growth, soil temperature moderation, or soil moisture conservation in organic production
6. Commercial spraying equipment and related protective gear. Producer must hold a current Private Pesticide Applicator's card
7. Bird netting
8. Specialized harvesting equipment, including mechanized tree spade (not self-propelled)
9. Cooling storage equipment
10. Sod production equipment (not self-propelled): seeders, finishing mowers, turf tires, net layers, tillers, rollers, sprayers, nurse tanks, spray tips, sweepers, aerators

Limitations:

- Excludes pallets, tractors, fertilizer, trucks, chemicals, forklifts, cutters, bobcats and all terrain vehicles.

B. Commercial Aquaculture Production

Prerequisites:

- Pond shall be a minimum of one-half surface acre in size.
- Note that there are different standards for shrimp production and finfish production.

Eligible Cost-share Items:

1. Eligible expenses for construction of aquaculture production pond and impoundment reservoirs:
 - a. Earth moving costs (embanking and excavating ponds; land shaping; professional labor)
 - b. Cost of providing water source (piping and conduits; drain and drain structure; professional labor)
 - c. Costs for electrical power (wiring, switches, control panels, professional labor)
2. Equipment and materials necessary for pond aeration (e.g. aerators, pumps)

C. Timber Production, Utilization and Marketing

Prerequisites:

- Growers shall obtain technical assistance from the Kentucky Division of Forestry for Timber Production cost-share items.
- Growers shall obtain a Forest Stewardship or Forest Management Plan free-of-charge from the Kentucky Division of Forestry or equivalent plan that provides technical information on cost-share practices provided in this Investment Area.
- Growers shall contact the Cooperative Extension Service for information on cost-share items related to forest products utilization and marketing, including information on small-scale harvesting, milling, drying and marketing.

Eligible Cost-share Items:

1. **Timber Production and Management:**

- a. Seeds and seedlings for transplant
- b. Layout and construction of permanent forest roads and stream crossings for long-term management, including construction of permanent best management practices on those road and stream crossings [One Pass Practice or General Forest Management]
- c. Construction of fire lines and lanes [One Pass Practice or General Forest Management]
- d. Timber Stand Improvement (TSI) [One Pass Practice or General Forest Management]

Practices such as thinning, release, control of invasive species, site preparation treatments (non-chemical) for natural regeneration, and pruning for the purpose of improving timber quality and growth.

2. **Forest Products Utilization and Marketing**
 - a. Timber and lumber processing equipment
 - i. sawmills, (portable or stationary)
 - ii. planers, molders and other similar processing equipment
 - b. Drying equipment and facilities including equipment for dry kilns, pre-dryers, dry sheds, air drying yards
 - c. Packing equipment

Limitations:

- Items for woodworking hobbies and refurbishing of existing wood products are not eligible for cost-share.

Appendix A: GRAPE CULTIVAR REQUIREMENTS

At least 75% of the acreage must be planted with the following American or inter-specific hybrid varieties to apply for the 50/50 cost-share program. Currently, it is not recommended (except for five varieties listed below) to plant grapes of European heritage (*Vitis vinifera*, L.) in Kentucky until cultivars have been identified that are suitable to the state's climate and soils by the University of Kentucky.

<u>Red wine grapes cultivars</u>	<u>Winter hardiness¹</u>	<u>Maturity²</u>
Chambourcin ³	Moderate	September
Frontenac	Hardy	August
Norton/Cynthiana ⁴	Hardy	October
Noiret	Hardy	September

<u>White wine grape cultivars</u>	<u>Winter hardiness</u>	<u>Maturity</u>
Cayuga white	Hardy	August
Catawba	Hardy	August
Chardone ⁵	Hardy	September
Diamond	Hardy	September
Frontenac Gris	Hardy	August
Niagara	Hardy	August
NY76	Hardy	September
Seyval blanc	Moderate	September
Valvin Muscat	Hardy	September
Villard blanc	Hardy	September
Vidal blanc	Hardy	September
Vignoles ⁶	Hardy	October
Traminette ^{7, 8}	Hardy	September

<u>Table grape cultivars</u>	<u>Winter hardiness</u>	<u>Maturity</u>
Concord	Hardy	September
Einset	Moderate	August
Jupiter ⁹	Moderate	August
Mars	Hardy	August
Marquis	Hardy	August
Neptune ¹⁰	Moderate	August
Reliance	Hardy	August
Vanessa	Hardy	August

(European Grape Cultivars on next page)

¹ Winter hardiness is the resiliency of grape buds to -15°F for one hour under normal cropping conditions.

² Maturity: Fruit composition values of 22.4 % total soluble solids, juice pH of 3.30 and titratable acidity of 0.7 mg/L.

³ It is recommended that Chambourcin be planted with a phylloxera resistant rootstock.

⁴ Although the Norton grapevine itself is very hardy, it needs ample heat units (>4000) GDD to ripen a full-crop.

⁵ It is recommended that Chardone be planted with a phylloxera resistant rootstock.

⁶ It is recommended that Vignoles be trained to training system that accommodates the upright growth habit.

⁷ It is recommended that Traminette be planted with phylloxera resistant rootstock.

⁸ It is recommended that Traminette be trained to the Geneva Double Curtain Training System in high nutrient soils.

⁹ Jupiter is susceptible to downy mildew

¹⁰ Neptune is susceptible to downy mildew

EUROPEAN GRAPE CULTIVARS

Due to the lack of field data and experience on performance of several European wine grapes in Kentucky, interested parties should approach planting new varieties with caution. Before establishing a vineyard, you should consider the viticultural characteristics and market demand of the varieties to be. The major challenge in growing grapes is winter injury, which is likely to occur during the life of the grapevine. The frequency of occurrence of extreme subfreezing temperatures depends on the site; best sites have less frequent (e.g. once in 8 to 10 years) winter damage than poor sites (every 2 to 3 years).

In general, it is expected to observe winter injuries in dormant buds at about 8F in European varieties. Note that the nature and extent of winter injury are not entirely predictable due to the complex interaction between genotype, the site and the climate. Other considerations for variety selection include disease susceptibility, ripening season (early-, mid-, or late-season), yield potential, growth habit, and cultural requirements.

European grape cultivars must be grafted to an American rootstock due to susceptibility to the phylloxera root louse. The two most common rootstocks used in Kentucky are C-3309 and 101-14.

<u>White wine grape cultivars</u>	<u>Winter hardiness</u>	<u>Maturity</u>
Chardonnay	Moderate	September

<u>Red wine grape cultivars</u>	<u>Winter hardiness</u>	<u>Maturity</u>
Cabernet Franc	Moderate	September
Cabernet Sauvignon	Moderate	October
Lemberger	Moderate	September
