

Alternative Fruit Crops R&E Program



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Alternative Fruit R&E Program

Alternative Fruit Crops

- Brambles
 - Raspberries
 - Blackberries
- Blueberries
 - Southern High Bush
- Strawberries
 - Plasticulture
 - Matted-Row
- Hops

Alternative Fruit R&E Program

Alternative Fruit Crops

- Aronia
 - Choke berry
- Beach Plums
 - *Prunus maritima*
- Goldenberry
- Table Grapes
 - Dessert grapes
 - Muscadines?
- Figs
- PawPaw
- Hardy Kiwi
- Currents
- Gooseberries
- Elderberries
- Cherries/Plums/Pears
- Heartnut/Hazelnut

Alternative Fruit R&E Program

Fresh Market

- Fresh market
 - U-Pick
 - Farm Market
 - Road-side stand
 - Wholesale

Alternative Fruit R&E Program

Value Added Processed

- Jellies and jams
- Pies
- Juices/cider
- Wine/hard ciders
- Dried

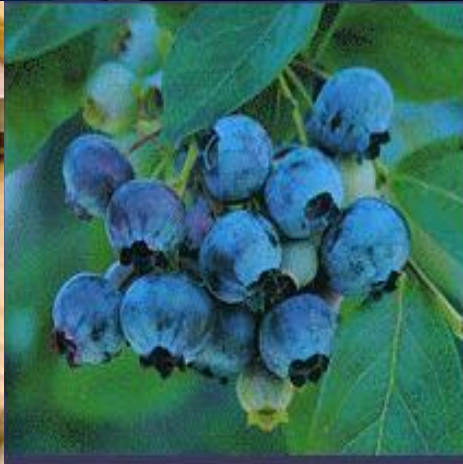
Alternative Fruit R&E Program

Alternative Fruit Crops

Beach plum



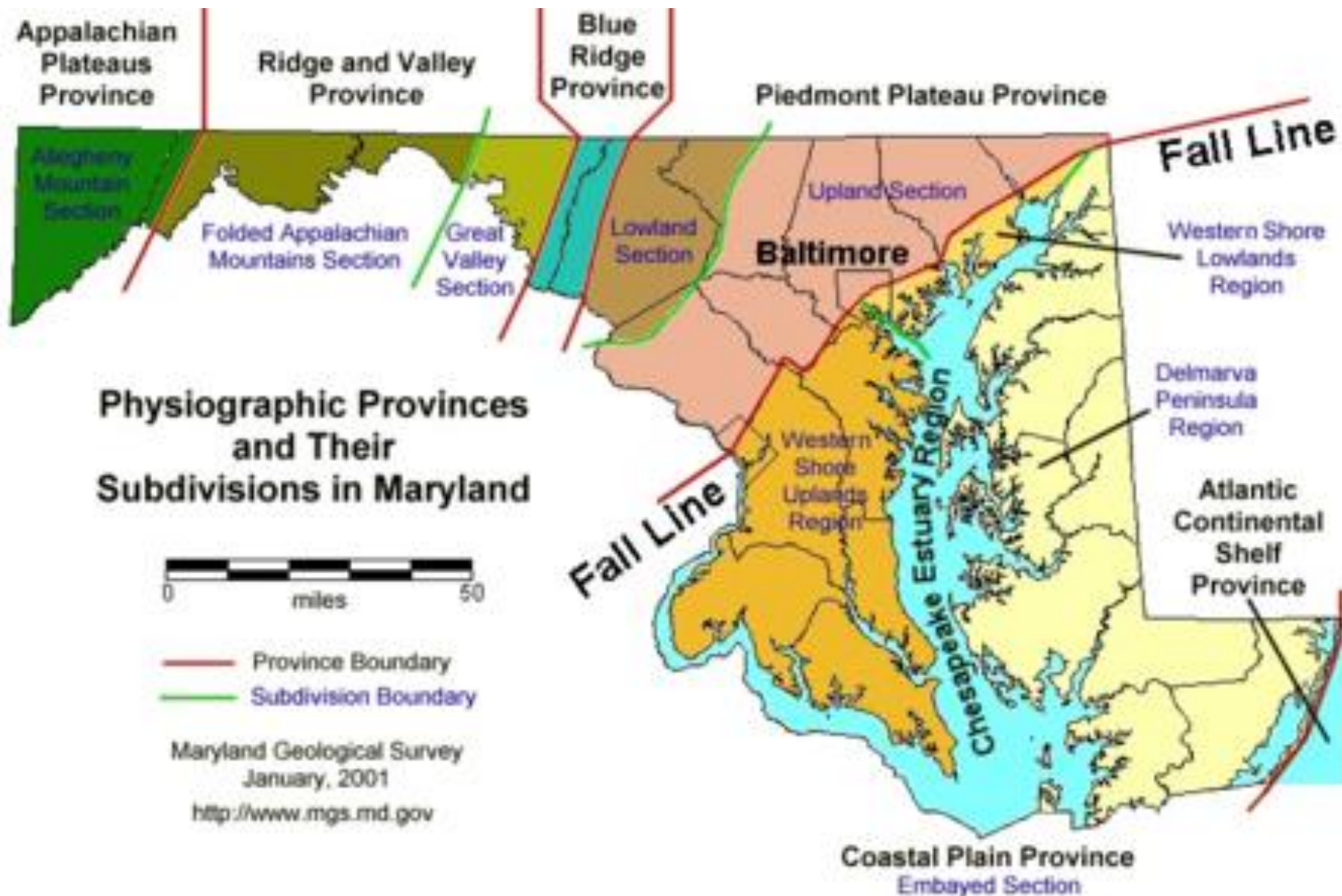
Caroline





Site Considerations

- Climate
- Topography
- Soil
- Proximity to Vineyard Pests
- Logistics





Soils

Type (desirable characteristics)

- ◆ Well to excessively well drained
 - No hard pan
 - Adequate aeration
 - Adequate depth to groundwater/SWT
- ◆ Medium to low water holding capacity
 - Sand/clay ratio
 - Organic matter content
 - pH
- ◆ Adequate depth
 - Grapes deep rooted
 - Avoid drought
 - Adequate depth to groundwater
 - Saltwater intrusion

Soils

NRCS – Soil Conservation Service

- ◆ NRCS County Office
 - Hard copy
 - A Person with knowledge and experience in your region
- ◆ Web Based
 - <http://websoilsurvey.nrcs.usda.gov/app/>
 - Search by address
 - Area of interest
 - Soil types and descriptions





Soil Series – Southern MD

Desirable

- Sassafras
- Matapeake
- Evesboro
- Westphalia
- Matapex

Less- desirable

- Beltsville
 - fragipan
 - perched
 - water tables high
- Elkton, Othello, Bibb
 - Poorly drained

AGRICULTURAL ANALYTICAL SERVICES LABORATORY • UNIVERSITY PARK, PENNSYLVANIA 16802 814-863-0841 <h1 style="margin: 0;">SOIL TEST INFORMATION FORM</h1>		
SERIAL NO. 29852		
<h2 style="margin: 0;">INSTRUCTIONS</h2> <p style="margin: 0; font-weight: normal;">FOR USE OF THIS FORM</p>		
<ol style="list-style-type: none"> 1. IMPORTANT - Read sampling instructions on the reverse side of this page before taking sample. 2. Select crop category from list below and complete page 2,3, or 4. 3. Send soil sample and page 2, 3, or 4 to the laboratory. Do not send payment with the sample. The price you paid for the soil test kit covers the cost of regular analysis and report. 4. Fill out receipt information on back of this page and keep for your records. 		
PAGE	CROP CATEGORY	CROPS
PAGE 2	AGRONOMIC CROPS	HAY • SILAGES • SMALL GRAINS • SOYBEANS • CORN • SORGHUM TOBACCO • BUCKWHEAT • PASTURES • ETC.
PAGE 2	POTATOES	CHIP POTATOES • TABLESTOCK POTATOES • HOME POTATO PATCH
PAGE 3	COMMERCIAL FRUITS	APPLES • PEACHES • PLUMS • CHERRIES • PEARS • BLACKBERRIES STRAWBERRIES • GRAPES • RASPBERRIES • BLUEBERRIES
PAGE 3	COMMERCIAL VEGETABLES (EXCEPT POTATOES)	TOMATOES • SWEET CORN • BEANS • CARROTS • CELERY • CABBAGE PEPPERS • PUMPKINS • ETC.
PAGE 4	TURF	LAWNS • GOLF COURSES • PLAY AREAS • CEMETERIES ATHLETIC FIELDS • SOD PRODUCTION • ROADSIDES
PAGE 4	HOME GARDEN (LESS THAN 1 ACRE) LANDSCAPE PLANTS FORESTRY	VEGETABLE GARDENS • FLOWER GARDENS • FRUIT GARDENS ORNAMENTALS • TREES • SHRUBS • GROUND COVERS WOODLOT • CHRISTMAS TREES
WHAT TO EXPECT FROM THE TESTING REPORTS EVERY EFFORT IS MADE TO PROVIDE A REPORT THAT IS MEANINGFUL TO THE INDIVIDUAL CONCERNED. MOST SAMPLES ARE ANALYZED AND A REPORT PREPARED FOR MAILING IN 3 TO 5 DAYS FROM DATE OF RECEIPT. DURING SEASONAL PEAKS THE SAMPLE REPORT MAY BE DELAYED SLIGHTLY.		
<small>SAMPLES ARE ANALYZED FOR PH (ACIDITY), LIME REQUIREMENT, PHOSPHORUS, POTASSIUM, MAGNESIUM, AND CALCIUM CONTENT. LABORATORY FINDINGS ARE TRANSMITTED TO A COMPUTER PROGRAM PREPARED BY CROP SPECIALISTS. THE FINAL REPORT INCLUDES THE CHEMICAL ANALYSIS AND A LIME AND FERTILIZER RECOMMENDATION TO MEET THE NEEDS OF YOUR SPECIFIC SOIL TYPE.</small>		

THE PENNSYLVANIA STATE UNIVERSITY
 AGRICULTURAL ANALYTICAL SERVICES LABORATORY • UNIVERSITY PARK, PENNSYLVANIA 16802
 814-863-0841

PLEASE PRINT - 3 LINE ADDRESS

UPPER USE	
ONLY	

LABORATORY NO. 29852	
SERIAL NO. 1	
DATE 10/1/81	
NAME JOHN DOE	
STREET OR R.D. NO. 123 MAIN ST	
CITY AND STATE PA 16802	ZIP 16802
COUNTY (IF IN PA) ALLEGANY	AREA CODE 814 TELEPHONE NO. 863-0841

EXTRA COPY TO (PERSON OR FIRM) PLEASE PRINT TYPE OR USE STAMP

NAME JOHN DOE	
STREET OR R.D. NO. 123 MAIN ST	
CITY AND STATE PA 16802	ZIP 16802
COUNTY (IF IN PA) ALLEGANY	AREA CODE 814 TELEPHONE NO. 863-0841

USE THIS FORM FOR COMMERCIAL FRUIT AND VEGETABLE CROPS ONLY

COUNTY WHERE FIELD IS LOCATED
 (IF DIFFERENT FROM ADDRESS)

FIELD NO. OR NAME (NO MORE THAN 6 DIGITS)	ACRES	OFFICE USE

SOIL NAME

ACRES

OFFICE USE

HAS CROP BEEN PLANTED?

☐ (1) YES ☐ NO

IF YES, DATE PLANTED

____/____/____

IF NO, WHEN

IS FIELD ARTIFICIALLY DRAINED? (CHECK)

☐ (1) YES ☐ NO

WILL CROP BE IRRIGATED? (CHECK)

☐ (1) YES ☐ NO

FLOW DEPTH (CHECK)

☐ (07) NO TILL AND MINIMUM TILL
☐ (07) LESS THAN 9 INCHES
☐ (10) 9 TO 11 INCHES (INCL.)
☐ (12) 12 INCHES OR MORE

Check box below if you do not wish to receive the Soil Test (ST) interpretation forms that accompany the Soil Test Report.

☐ NO ST FORMS

CROP INFORMATION

**SEE BACK OF THIS SHEET FOR CROP CODES
 (THIS SECTION MUST BE COMPLETED)**

FERTILIZER RECOMMENDATIONS REQUESTED FOR:

CROP CODE
 From opposite side

CROP NAME

**IF TREE FRUITS OR GRAPES ARE CODED ABOVE
 COMPLETE THIS SECTION**

1) CULTIVAR: _____

2) ROOTSTOCK: _____

3) SPACING _____ FT X _____ FT

DID YOU SEND A PLANT
 FOR ANALYSIS?

☐ YES ☐ NO

IF GRAPE, CANE VIGOR IS:
 (CHECK ONE)

☐ POOR ☐ VIGOROUS ☐ EXCESSIVE

HERBICIDE INFORMATION (OPTIONAL)

HAVE HERBICIDES BEEN APPLIED?

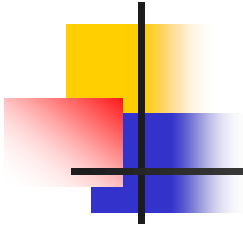
☐ YES ☐ NO

MATERIAL

RATE

DATE

FOR SPECIFIC CROP PRODUCTION PROBLEMS OR QUESTIONS, WRITE OR CALL YOUR COUNTY AGENT



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Alternative Fruit R&E Program

Beach Plums

Beach Plums (*Prunus maritima*)

The Beach Plum is a fruiting shrub native to coastal dunes of the Northeastern United States. The fruit has been collected from the wild for making preserves and jelly since colonial times. Today, native stands support a high-value cottage industry in the Northeast. Interest in bringing beach plum into commercial production has necessitated small-scale production trials to optimize horticultural practices to increase yield.



Alternative Fruit R&E Program

Figs

Figs (*Ficus carica*)

Figs are a desirable fruit for fresh market and processing for direct sale. Challenges for fig production in the Southern Maryland area include the selection of moderately cold hardy early varieties that can survive winter in Regions 7 and 8. Existing research shows potential for fig production in areas where temperatures remain above 15 degrees F. or are protected with some form of environment modification





WMREC - Keedysville

WyeREC - Queenstown

CMREC – Upper Marlboro

Commercial Site

LESREC - Salisbury

“Summerseat” – Lusby

“Lawton Hall Vineyard ” – Bushwood

“Point Lookout – Joe Dick

Alternative Fruit R&D Locations

Alternative Fruit R&E Program

Muscadine Grapes

Muscadine Grapes (*Vitis rotundifolia*)

The Muscadine or “Southern Grape,” is grown widely from North Carolina to Florida.

They can be processed into juice and wine, however there has been a surge of demand for fresh fruit, especially in the Washington, D.C. region. Although it will only grow in the most protected sites in the region due to cold sensitivity, it may be able to fit into a very lucrative niche market



Alternative Fruit R&E Program

MCE Cooperators

- County Extension Educators
 - Ben Beale
 - David Myers
 - Herb Reed
 - Laura Romaneo
 - Lief Erikson (Nutrient Management)
- Research, Extension, and Teaching Faculty
 - Dr. Harry Swartz - Propagation/Physiology
 - Dr. Bill Lamp - Entomology



Alternative Fruit R&E Program

Southern Highbush Blueberry



Southern Highbush Blueberries

The Southern Highbush Blueberry (*V. corymbosum* x *V. darwini*) is a cross between the Northern Highbush Blueberry and the native southern Darwin species. The Southern Highbush is considered to have greater tolerance to high summer temperatures, greater drought tolerance, early fruit production, and superior fruit quality in hotter climates.



Alternative Fruit R&E Program

Brambles

The UMD/NJ/VA/WI Cooperative Bramble Breeding Program has developed a series of new varieties, including spring and fall red raspberries and the "Wye" berry that is similar to the processing berries of the PacNW US. These varieties are very adapted, disease resistant, and produce quality fruit that are highly touted by the processing industry for value-added products. Research is also being done on extending the season utilizing the diverse environments in the state. Brambles are a high value alternative crop that can be grown economically and almost organically.



Alternative Fruit R&E Program

R&D Locations

WMREC (Washington Co)

- Beach plums
- Brambles
- Grapes

WyeREC (Eastern Shore)

- Blueberries?

LESREC (Far Eastern Shore)

- Beach plums
- Grapes
- Blueberries?

CMREC (PG/Western Shore)

- Beach plums
- Grapes
- Blueberries?

Grower Sites (Western Shore)

- Beach plums
- Grapes
- Blueberries
- Figs
- Autumn olive



Alternative Fruit R&E Program

Program Support

- Tri-County Council
 - 3 year Establishment Grant
 - 3 year Viticulture and Enology Grant
- Maryland Department of Agriculture
 - 2 year Alternative Crops Grant
- MD Center for Agro-Ecology
 - Grant pending
- MAES and MCE

