



United States
Department of
Agriculture

Agricultural
Research
Service

Pacific West Area

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December 14, 1990

SUBJECT: Cranberry Collecting

TO: H. Shands, A. Stoner, C. Sperling, Small Fruit CAC, and Cranberry Collaborators.

FROM: Kim Hummer, RL/Curator, NCGR-Corvallis

Last year Calvin Sperling mentioned that native germplasm of one of our most valuable economic crops, cranberries, was poorly represented in our germplasm system.

Cranberries, in the genus *Vaccinium*, are housed at our facility. As Curator, I have increased contacts with those who work with cranberries and have begun collecting cranberries from native locations throughout the United States and Canada. This past fall I traveled through Maine, New Hampshire, and Vermont and collected native *V. macrocarpon* Ait. (the North American species that the cultured type is selected from) and *V. oxycoccus* L. the small fruited cranberry native circumpolar boreal. I also happened on *Gaultheria hispidula* (L.) Muhl., Creeping Pearlberry, a native prostrate plant that would make an excellent ornamental ground cover.

For *V. macrocarpon* we have at present 39 cultivars (these cultivars are mostly selected directly from wild species but have become named and known in the trade). We have 16 selections from wild collections obtained from 7 states. We also have one yellow fruited mutant of *V. macrocarpon*. We have 6 accessions of *V. oxycoccus* from Maine, Alaska, and Scandinavian countries. We also have 29 accessions of *V. vitis-idaea* L., Mountain Cranberry or Lingonberry from 8 countries.

I plan to continue increasing the collection from native and cultivated material throughout North America.

Enclosure:
Plant Exploration Report

jf

11 December 1990

PLANT COLLECTION EXPEDITION THROUGH NEW ENGLAND
SEPTEMBER 24 TO 28, 1990

Kim E. Hummer

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I left Portland, Oregon and arrived at Bangor, Maine on the evening of 24 September 1990. I called Dr. John Smagula, Department of Horticulture, University of Maine, Orono, Maine and made arrangements to meet with him at 10 AM, 25 September 1990.

I arose at 7 AM and left to drive to the Maine Coast to hunt for cranberries which I was told by Joseph Postman and Jim Chandler were "all over Route 1 down by Ellsworth! I drove along for awhile but couldn't find a berry on Route 1. I turned off and headed to Marlboro but still couldn't find any. Not too far out of Marlboro I noticed some red fruit in an upland site. It turned out to be *Vaccinium oxycoccos* L. so I collected some to bring home. I also stopped at Ellsworth Falls rest area and collected *Fragaria virginiana* Duches. *Rubus* abounded but not being familiar with the taxonomy of *Rubus* I thought I best let it be for another trip.

I met up with Dr. Smagula at about 10 AM. He kindly drove me out through the Maine Blueberry barrens where Lowbush grow abundantly. The Maine blueberry crop is a problem of "managing a native" resource rather than new planting and cultivating rows of crops in the fashion that highbush blueberries are produced. The crop is managed in a biennial cycle: burn one year, harvest the second year.

Dr. Smagula provided our collection with *V. angustifolium* Ait. and *V. myrtilloides* Michx. clones and selections. Several he had received from I. V. Hall in Canada. Dr. Smagula also provided me with *V. macrocarpon* L. that was collected from the Maine Coast.

I drove down and met with Drs. Tom Davis and Dr. Jim Pollard at the University of New Hampshire, Durham, New Hampshire on 26 September. I presented a seminar to their Department of Plant Biology on the National Plant Germplasm System with special emphasize on clonal germplasm. Dr. Pollard drove me into a nearby bog at Lee, NH where I made my first collection of *V. macrocarpon*. I also met with Scott Williamson, graduate student at U.N.H. He was extremely helpful in providing mutants of *F. vesca* L. 'Baron Solemacher' from his research program and other resources at the University of New Hampshire.

Dr. Pollard and Christine, his graduate student, accompanied me all the next morning to five or six bogs in Southern New Hampshire where we had many successes and some failures at finding *V. macrocarpon*. I found very wet sneakers (on the end of my feet) in that I lightened my travel load by not bringing hip boots. My dry footed New Hampshire guides were better prepared. They dropped me off at the farm of Professor Elwin Meader. Professor Meader is a grand plant breeder of the old school who worked for the USDA under George Darrow many years ago.

Professor Meader has crossed several oriental cherries and obtained a shrub cherry. The seventeen year old plant was less than four feet tall and fruiting in September. The cherries are excellent pie cherries.

Professor Meader has crossed *V. stamineum* (deerberry) with *V. vitis-idaea* (lingonberry). I asked him for some of each of the parental lines and for some of the hybrids. The hybrids are intermediate in height and have red tinged fruit. Professor Meader is after a "shrub cranberry" if he can make one.

Professor Meader had quite an arboretum of Korean Native shrubs and trees transplanted to his New Hampshire farm. He has active *Diospyros* and *Actinidia* trials. He has a "thrive by neglect" type of breeding philosophy which works well for selection in his New Hampshire environment. I would have liked to spend more time but that evening I had to drive through Dixville Notch, at the Northern part of the state on my way to Vermont.

Dr. Pollard referred me to Dixville Notch as the farthest north in New Hampshire that he has heard of cranberries.

When I arrived at the Notch the sun was setting on magnificent autumn foliage. I attempted to take photographs realizing fully that one could never capture the wonder of nature's pallet with photographic chemicals.

I looked "all over the rocks at Dixville Notch" where Dr. Pollard had said the cranberry was growing. I found a prostrate woody plant that looked like a *Vaccinium*, but after looking in taxonomic books several months later I found it was really *Gaultheria hispidula* (L.) Muhl. (= *Chiogenes hispidula*) or Creeping Pearlberry. This plant has white flowers and fruit and makes a beautiful ground cover.

I drove on to Charlotte, Vermont where I arrived at the home of Dr. Norman Pellett who graciously provided room and board for the day and he guided me through Vermont Bogs.

On Friday Dr. Pellett hauled out his canoe and we paddled across Shelburn Lake to Shelburn Bog where we found plentiful *V. macrocarpon*. We went to several other bogs (Franklin bog and another at Maquam) but did not find *V. macrocarpon*. We found *Gaultheria hispidula* growing at Franklin bog. My greatest tribulation on the trip involved getting locked in a bathroom near Franklin, Vermont because there was no inside door handle on the door. Dr. Pellet kindly rescued me.

I spent Saturday, 29 September visiting with old friends from my graduate days at University of Vermont and returned 30 September 1990 to Corvallis.

Since my return Dr. Don Mairs, entomologist with the Maine Department of Agriculture, has collected and sent additional native Maine cranberries. One that he sent called "Yellow Bell" has yellow bell shaped fruit. Jim Chandler and Joseph Postman contacted relatives in Maine who also sent us native cranberry clones that they could obtain.

NAMES AND ADDRESS OF COLLABORATORS

Dr. John M. Smagula
Department of Plant Soil Science
Deering Hall
University of Maine
Orono, ME 04469
Tele: 207\581-2925

Low bush blueberry contact

Dr. James Pollard
Department of Plant Science
Nesmith Hall
University of New Hampshire
Durham, NH 03824-3597

Located native cranberries
in New Hampshire

Professor E.M. Meader
43 Meaderboro Rd.
Rochester, NH 03867

Fruit Breeder and General
Horticulturist

Dr. Norman Pellett
Department of Plant and Soil Sciences
University of Vermont
Burlington, VT 05401

Located native cranberries in
Vermont

Dr. Don Mairs
Maine Department of Agriculture
Division of Plant Industry
Station #28
Augusta, ME 04333

Unable to talk to him during
my visit, but he sent cranberry
cultivars from Maine after my
return to Oregon.

RESULTS OF MAINE, NEW HAMPSHIRE, AND VERMONT PLANT COLLECTING EXPEDITION, SEPTEMBER 1990

Kim E. Hummer, USDA/ARS NCGR

<u>Amount</u>	<u>Name</u>
(4)	<i>Vaccinium angustifolium</i>
	VAC 799 Cultivated at Jonesboro Main Expt. Station
	VAC 800 Cultivated at Jonesboro Main Expt. Station
	VAC 801 Selected from New Brunswick, Canada
	VAC 802 Selected from Maine by I. V. Hall
(1)	<i>Vaccinium corymbosum</i>
	VAC 811 Selected from Missisquoi Nat. Wildlife Refuge, Maquam, VT
(6)	<i>Vaccinium macrocarpon</i>
	VAC 803 Selected from Maine Coast
	VAC 805 Selected from Lee, New Hampshire Bog
	VAC 809 Selected from Shelburne, Vermont Bog
	VAC 823 Selected from New Market, New Hampshire Bog
	VAC 824 Selected from South Lee, New Hampshire Bog
	VAC 825 Selected from East Barrington, New Hampshire Bog
(3)	<i>Vaccinium myrtilloides</i>
	VAC 798 Cultivated at Experiment Station; Jonesboro, Maine
	VAC 804 Albino from Jonesboro, Maine
	VAC 808 Selected from Colebrook, New Hampshire
(1)	<i>Vaccinium oxycoccos</i>
	VAC 797 Selected from Marlboro-by-the-Sea, Maine
(1)	<i>Vaccinium vitis-idaea</i>
	VAC 806 Native of Bangor, Maine
(2)	<i>Gautheria hispidula</i>
	Dixville Notch, New Hampshire
	Franklin Bog, Vermont
(9)	<i>Fragaria vesca</i>
	983 Baron Solemacher with Lt-green mutation - seed from NH
	984 Baron Solemacher with yellow mutation - seed from NH
	985 Baron Solemacher with white mutation - seed from NH
	986 Baron Solemacher polyfoliate clone from NH
	987 Selected in Siberia USSR - seed from NH
	988 From native New York Location - Seed
	989 Seed from native New Hampshire location
	990 Baron Solemacher yellow-green mosaic mutant - seed from NH
	991 Baron Solemacher autotetraploid

- (6) *Fragaria virginiana*
- 982 Clone selected from Ellsworth, Maine native
 - 993 New Hampshire selection
 - 994 Clone selected from Charlotte, Vermont native
 - 995 New Hampshire native clone
 - 996 New Hampshire native clone
 - 997 Dixville Notch, New Hampshire native clone.

33 Total accessions were obtained

New England Accessions
Material collected by K.E. Hummer
Autumn 1990

Name	VI Other Number	Donor	Dated	Form	Ant.	Shlocate	Shno	Field	Fno	IC	Avail	Reas
982 F. virginia	U 90-02	HUMH1	19901001	PL	0	PROP	0	none	0		NOT	PROP
983 Baron Solemacher carrying lt-gr mutation	U 456J3	HUMH1	19901001	PL	0	PROP	0	none	0		NOT	PROP
984 Baron Solemacher carrying yellow mutation	U 502C2	HUMH1	19901001	PL	0	PROP	0	none	0		NOT	PROP
985 Baron Solemacher carrying white mutation	U 64806	HUMH1	19901001	PL	0	PROP	0	none	0		NOT	PROP
986 Baron Solemacher - polyfoliate	U 82 light 0	HUMH1	19901001	PL	0	PROP	0	none	0		NOT	PROP
987 F. vesca - Siberia	U S 24	HUMH1	19901001	PL	0	none	0	none	0		NOT	PROP
988 F. vesca - New York location	U MC 58	HUMH1	19901001	PL	0	PROP	0	none	0		NOT	PROP
989 F. vesca - New Hampshire location	U MC 66	HUMH1	19901001	PL	0	PROP	0	none	0		NOT	PROP
990 Baron Solemacher yellow-green mosaic mutant	B2L-6	HUMH1	19901001	SD	300	PROP	0	none	0		YES	
991 Baron Solemacher autotetraploid	3-1-2 D	HUMH1	19901001	SD	50	PROP	0	none	0		NOT	LOW
992 Baron Solemacher light-green mutant	538X-L	HUMH1	19901001	SD	250	PROP	0	none	0		YES	
993 F. virginiana - New Hampshire collection	U 90-09	HUMH1	19901001	PL	0	PROP	0	none	0		NOT	PROP
994 F. virginiana - Vermont collection	U VT 4	HUMH1	19901001	PL	0	PROP	0	none	0		NOT	PROP
995 F. virginiana	U NH # 2	HUMH1	19901001	PL	0	PROP	0	none	0		NOT	PROP
996 F. virginiana	U NH # 4	HUMH1	19901001	PL	0	PROP	0	none	0		NOT	PROP
997 F. virginiana - Dixville Notch selection	U	HUMH1	19901001	PL	0	PROP	0	none	0		NOT	PROP
997 V. oxycoccos	U 90-01	HUMH1	19901001	PL+SD	50	PROP	0	none	0		NOT	PROP
998 V. myrtilloides	U 90-03	HUMH1	19901001	PL+SD	300	PROP	0	none	0		NOT	PROP
999 V. angustifolium	U 90-04	HUMH1	19901001	PL+SD	800	PROP	0	none	0		NOT	PROP
800 V. angustifolium	U 90-05	HUMH1	19901001	PL	0	PROP	0	none	0		NOT	PROP
801 V. angustifolium	U ME-03	HUMH1	19901001	PL	0	PROP	0	none	0		NOT	PROP
802 V. angustifolium selection ME-3	U ME-3	HUMH1	19901001	PL	0	PROP	0	none	0		NOT	PROP
803 V. macrocarpon	U 70-28	HUMH1	19901001	PL	0	PROP	0	26-02	1		NOT	PROP
804 V. myrtilloides Albino form	U 70-28	HUMH1	19901001	PL	0	PROP	0	none	0		NOT	PROP
805 V. macrocarpon	U 90-06 NH1	HUMH1	19901001	PL	0	PROP	0	26-01	1		NOT	PROP
806 V. vitis-idaea	U	HUMH1	19901001	PL	0	PROP	0	none	0		NOT	PROP
807 Gaultheria sp. [V. oxycoccos] ?	U 90-07	HUMH1	19901001	PL	0	PROP	0	26-05	1		NOT	NOX
808 V. myrtilloides	U 90-07	HUMH1	19901001	PL+SD	1000	PROP	0	none	0		NOT	PROP

New England Accessions
Material collected by K.E. Hummer
Autumn 1990

Name	VI Other Number	Donor Material	Form	Ant. Shlocate	Shno	Field	Fno	IC	Avail	Reqs
809 V. macrocarpon - Vermont collection	U VI 1	HUMM1 19901001	PL+SD	150	PROP	0	26-04	1	NOT	PROP
810 Gaultheria [V. oxyracos] - Vermont collection	U VI 2	HUMM1 19901001	PL	0	PROP	0	26-03	1	NOT	INX
811 V. corymbosum - Vermont collection	U VI 3	HUMM1 19901001	PL	0	PROP	0	none	0	NOT	PROP
823 V. macrocarpon	U NH #2	HUMM1 19901001	PL	0	PROP	0	27-01	1	NOT	PROP
824 V. macrocarpon	U NH #3	HUMM1 19901001	PL+SD	200	PROP	0	none	0	NOT	PROP
825 V. macrocarpon	U NH #3	HUMM1 19901001	PL+SD	500	PROP	0	none	0	NOT	PROP
18 Gaultheria hispidula	U 90-07	HUMM1 19901001	PL	0	PROP	0	26-05	1	NOT	PROP
19 Gaultheria hispidula	U VI 2	HUMM1 19901001	PL	0	PROP	0	26-03	1	NOT	PROP

CFRA 982
 Plantname : F. viridina Buchesne
 Other Number : 90-02
 Form : PL 2 pots
 Herbarium : N
 Photo : Roll 1 19,20
 Assoc. Plant : Rubus, Potentilla, under E. White Pine
 Comments : sandy soil organic top layer

City : Ellsworth
 State : Maine
 Country :
 LocInfo : Ellsworth Falls rest area, about 2 miles NW of Ellsworth
 Lat & Long : 44 31 N, 68 21 W
 Elevation : 200m
 Habitat : shady roadside pull-off with picnic area

CFRA 983 ,,
 Plantname : Baron Solemacher carrying lt-gr mutation
 Other Number : 456J3
 Form : PL 1 pot
 Herbarium : N
 Photo :
 Assoc. Plant :
 Comments : produced by gamma-irradiation of seed
 mutations appear to be recessive single-gene mutations
 donated by Scott Williamson, grad student of Tom Davis, UNH

City : Durham
 State : New Hampshire
 Country : United States
 LocInfo : M2 heterozygote
 Lat & Long : ,
 Elevation :
 Habitat :

CFRA 984
 Plantname : Baron Solemacher carrying yellow mutation
 Other Number : 502C7
 Form : PL 1 pot
 Herbarium : N
 Photo :
 Assoc. Plant :
 Comments : produced by gamma-irradiation of seed
 mutations appear to be recessive single-gene mutations
 donated by Scott Williamson grad student of Tom Davis, UNH

City : Durham
 State : New Hampshire
 Country : United States
 LocInfo : M2 heterozygote
 Lat & Long : ,
 Elevation :
 Habitat :

CFRA 985
 Plantname : Baron Solemacher carrying white mutation
 Other Number : 64803
 Form : PL 1 pot
 Herbarium : N
 Photo :
 Assoc. Plant :
 Comments : produced by gamma-irradiation of seed
 mutations appear to be recessive single-gene mutations
 donated by Scott Williamson grad student of Tom Davis, UNH
 City : Durham
 State : New Hampshire
 Country : United States
 LocInfo : M2 Heterozygote
 Lat & Long : ,
 Elevation :
 Habitat :

CFRA 986 ,'
 Plantname : Baron Solemacher-polysfoliate
 Other Number : 82 light 0
 Form : PL 2 pots
 Herbarium : N
 Photo :
 Assoc. Plant :
 Comments : produced by gamma-irradiation of seed
 leaves have variable number of leaflets and some dissected
 donated by Scott Williamson, grad student of Tom Davis, UNH
 City : Durham
 State : New Hampshire
 Country : United States
 LocInfo : M3 Heterozygote
 Lat & Long : ,
 Elevation :
 Habitat :

CFRA 987
 Plantname : F. vesca - Siberia
 Other Number : S 24
 Form : PL 1 pot
 Herbarium : N
 Photo :
 Assoc. Plant :
 Comments : collected by Dr. Garrett E. Crow at C. Siberian Botanical
 Garden Dendrarium
 very small leaves, dwarfed habit but visorous 2n=14
 City : Novosibirsk
 State : Siberia
 Country : USSR
 LocInfo :
 Lat & Long : ,
 Elevation :
 Habitat :

CFRA 988

Plantname : F. vesca - New York location
 Other Number : UC 58
 Form : FL 1 pot
 Herbarium : N
 Photo :
 Assoc. Plant :
 Comments : collected by Scott Williamson donated to NCGR
 Schenectady County
 very small leaves, dwarfed habit but vigorous 2nd14
 City : Princetown
 State : New York
 Country : United States
 LocInfo : 2.3 miles west of Princetown, NY town line
 Lat & Long : 42 50 N, 72 10 W
 Elevation :
 Habitat : edge of woods in 1st park lot route 20 E, E of I-88

CFRA 989

Plantname : F. vesca - New Hampshire location
 Other Number : UC 66
 Form : FL 1 pot
 Herbarium : N
 Photo :
 Assoc. Plant :
 Comments : collected by Scott Williamson donated to NCGR
 City : Durham
 State : New Hampshire
 Country : United States
 LocInfo : Oyster River Park, NW corner
 Lat & Long : 43 07 N, 70 55 W
 Elevation :
 Habitat : along slope of river bank

CFRA 990

Plantname : Baron Solemacher yellow-green mosaic mutant
 Other Number : 82L-G
 Form : SH 300
 Herbarium : N
 Photo :
 Assoc. Plant :
 Comments : gamma irradiation induced leaf variegation mutation
 leaf mutation though to be carried through the seed
 donated by Scott Williamson, grad student at UNH
 City : Durham
 State : New Hampshire
 Country : United States
 LocInfo :
 Lat & Long : ,
 Elevation :
 Habitat :

CFRA 991
 Plantname : Baron Solemacher autotetraploid
 Other Number : 3-1-2 D
 Form : SD 50
 Herbarium : N
 Photo :
 Assoc. Plant :
 Comments : Colchicine-induced autotetraploid
 donated by Scott Williamson, grad student, UNH
 Site : Durham
 State : New Hampshire
 Country : United States
 LocInfo :
 Lat & Long : ,
 Elevation :
 Habitat :

CFRA 992 ,,
 Plantname : Baron Solemacher light-green mutant
 Other Number : S38K-L
 Form : SD 250
 Herbarium : N
 Photo :
 Assoc. Plant :
 Comments : gamma-irradiation induced mutant
 donated by Scott Williamson, grad student, UNH
 Site : Durham
 State : New Hampshire
 Country : United States
 LocInfo :
 Lat & Long : ,
 Elevation :
 Habitat :

CFRA 993
 Plantname : F. virginiana - New Hampshire collection
 Other Number : 90-08
 Form : PL 4 pots
 Herbarium : N
 Photo :
 Assoc. Plant : V. oxycoccus, sphagnum, Rubus
 Comments :
 Site : Dixville Notch
 State : New Hampshire
 Country : United States
 LocInfo : open edge of woods Route 26
 Lat & Long : 44 25 N, 71 17 W
 Elevation :
 Habitat : on rock ledges growing on both sides of road through notch

CFRA 994
 Plantname : F. virginiana- Vermont Collection
 Other Number : UT 4
 Form : PL 3 pots, mist
 Herbarium :
 Photo :
 Assoc. Plant :
 Comments : weed invading garden

City : Charlotte
 State : Vermont
 Country : United States
 LocInfo : 1 mile south of Hinesburg road, 3 miles E of Charlotte
 Lat & Long : 44 16 N, 73 10 W
 Elevation : 125m
 Habitat : open woods

CFRA 995
 Plantname : F. virginiana
 Other Number : NH # 2
 Form : PL
 Herbarium :
 Photo :
 Assoc. Plant : in association with cranberry-sphagnum bog
 Comments : about 2.5 miles west of Newmarket

City : Newmarket
 State : New Hampshire
 Country : United States
 LocInfo :
 Lat & Long : 43 15 N, 71 00 W
 Elevation : about 100m
 Habitat : in association with sphagnum bog

CFRA 996
 Plantname : F. virginiana
 Other Number : NH #4
 Form :
 Herbarium :
 Photo :
 Assoc. Plant :
 Comments : in association with cranberry-sphagnum bog

City : East Barrington
 State : New Hampshire
 Country : United States
 LocInfo :
 Lat & Long : 43 25 N, 71 05 W
 Elevation : about 150m
 Habitat :

CFRA 997

Plantname : F. virginiana- Dixville Notch selection
Other Number :
Form : PL
Herbarium :
Photo :
Assoc. Plant : sphagnum
Comments : growing on rock walls on both sides of route 26
about 2 miles east Dixville Notch

City : Dixville Notch
State : New Hampshire
Country : United States
LocInfo :
Lat & Long : 44 25 N, 71 17 W
Elevation :
Habitat : edge of road, forested area, growing on rock ledges

CVAC 797

Plantname : V. oxycoccus L.
Other Number : 90-01
Form : PL,SD mist, 1 pot, fruit
Herbarium : Y
Photo : ROLL 1 16,17,18
Assoc. Plant : E. Hemlock, Solidago, Sphagnum, Lycorodium, Brit. Soldier
Comments : White birch downed nearby
this site was more upland and dry than boggy although
sphagnum and other mosses were present

City : Marlboro By the Sea
State : Maine
Country : United States
LocInfo : Along Maine Route 204 about 2 miles from the ocean
Lat & Long : 44 30 N, 68 20 W
Elevation : 100m
Habitat : shady wooded area

CVAC 798

Plantname : V. myrtilloides Michx.
Other Number : 90-03
Form : PL,SD 4 pots, fruit
Herbarium : N
Photo : Roll 2 - 11
Assoc. Plant :
Comments : Growing on research farm of U. of ME but natural to location
myrtilloides can be distinguished from angustifolium by
presence of pubescence on stems and leaves

City : Jonesboro
State : Maine
Country :
LocInfo : Blueberry Hill Research Center, U. of Maine
Lat & Long : 44 30 N, 68 08 W
Elevation : 200m
Habitat : open field of lowbush blueberry

CVAC 799
 Plantname : V. angustifolium Ait.
 Other Number : 90-04
 Form : PL 4 pots, fruit
 Herbarium : N
 Photo : Roll 2 about 12
 Assoc. Plant :
 Comments : Growing on research farm of U. of ME but natural to location
 foliage vividly red - more so than adjacent clones
 City : Jonesboro
 State : Maine
 Country :
 LocInfo : Blueberry Hill Research Center, U. of Maine
 Lat & Long : 44 30 N; 68 08 W
 Elevation : 200m
 Habitat : open field of lowbush blueberry

CVAC 800
 Plantname : V. angustifolium Ait.
 Other Number : 90-05
 Form : PL 4 pots, mist
 Herbarium : N
 Photo : Roll 2 about 12
 Assoc. Plant :
 Comments : Growing on research farm of U. of ME but natural to location
 this clone had green leaves, slower to turn red than 90-04
 City : Jonesboro
 State : Maine
 Country :
 LocInfo : Blueberry Hill Research Center, U. of Maine
 Lat & Long : 44 30 N; 68 08 W
 Elevation : 200m
 Habitat : open field of lowbush blueberry

CVAC 801
 Plantname : V. angustifolium Ait.
 Other Number : NB-03
 Form : PL 4 pots
 Herbarium : N
 Photo :
 Assoc. Plant :
 Comments : Selected from Canadian lowbush blueberry by I.V.Hall,
 given to Dr. John Smasula at U. Me given to NCGR
 We need to write to Hall for more pedigree information
 City :
 State : New Brunswick
 Country : Canada
 LocInfo : Selection made by I.V.Hall
 Lat & Long :
 Elevation :
 Habitat :

CVAC 802

Plantname : *V. angustifolium* Ait. selection ME-3
Other Number : ME-3
Form : PL 4 pots
Herbarium : N
Photo :
Assoc. Plant :
Comments : Selected from Maine lowbush blueberry by I.V.Hall,
given to Dr. John Smasula at U. Me given to NCGR
We need to write to Hall for location collected
City :
State : New Brunswick
Country : Canada
LocInfo : Selection made by I.V.Hall
Lat & Long : ,
Elevation :
Habitat :

CVAC 803

Plantname : *V. macrocarpon* Ait.
Other Number : 70-28
Form : PL 6 pots
Herbarium : N
Photo :
Assoc. Plant :
Comments : collected from the Maine coast, Dr. John Smasula will
give us more information on location data
City :
State : Maine
Country : United States
LocInfo :
Lat & Long : ,
Elevation :
Habitat :

CVAC 804

Plantname : *V. myrtilloides* Michx Albino form
Other Number : (right)
Form : PL 1 pot
Herbarium : N
Photo :
Assoc. Plant :
Comments : collected by Dr. John Smasula at the U. of ME Blueberry Hill
Research Center
City : Jonesboro
State : Maine
Country : United States
LocInfo :
Lat & Long : 44 30 N, 68 08 W
Elevation : 200m
Habitat : open field of lowbush blueberries - mutation in fruit

CVAC 805
 Plantname : *V. macrocarpon* Ait.
 Other Number : 90-06 NH1
 Form : PL 5 pots
 Herbarium : N
 Photo :
 Assoc. Plant : leatherleaf, partridgeberry, sphagnum
 Comments : edge of bog, lowlying moist location
 behind Lee Library parking lot trail through woods to bog
 City : Lee
 State : New Hampshire
 Country : United States
 LocInfo : Off State Route 155 about 0.5m from road
 Lat & Long : 43 20 N, 71 00 W
 Elevation : 200m
 Habitat : at edge of bog, open above

CVAC 806
 Plantname : *V. vitis-idaea* L.
 Other Number :
 Form : PL 1 pot, mist
 Herbarium : N
 Photo :
 Assoc. Plant :
 Comments : donated by Elwin Meader
 collected in Bangor, ME given to Meader, to NCGR
 City :
 State : Maine
 Country : United States
 LocInfo :
 Lat & Long : 44 45 N, 68 50 W
 Elevation :
 Habitat :

CVAC 807
 Plantname : *Gaultheria hispidula*
 Other Number : 90-07
 Form : PL 4 pots
 Herbarium : N
 Photo :
 Assoc. Plant : *F. virginiana*, sphagnum, *Rubus*
 Comments : Type with small ovoid leaves, no fruits found
 City : Dixville Notch
 State : New Hampshire
 Country : United States
 LocInfo : no fruit visible
 Lat & Long : 44 25 N, 71 17 W
 Elevation :
 Habitat : on rock ledges growing on both sides of road through notch

CVAC 808
 Plantname : *V. myrtilloides* L.
 Other Number : 90-07
 Form : FL, SD 2 pots; mist, fruit
 Herbarium :
 Photo : roll 3
 Assoc. Plant : sphagnum, mosses, Indian Paint Brush
 Comments : of fruit and clones were collected

City : Colebrook
 State : New Hampshire
 Country : United States
 LocInfo : 1 mile south of Colebrook, NH on Rte 3
 Lat & Long : 44 27 N, 71 30 W
 Elevation :
 Habitat : growing on rock ledge besides road

CVAC 809
 Plantname : *V. macrocarpa* - Vermont collection
 Other Number : VT 1
 Form : FL 2 pots; mist, fruit
 Herbarium :
 Photo : Roll 3
 Assoc. Plant : ferns, leatherleaf, sphagnum, E. Hemlock
 Comments :

City : Shelburne
 State : Vermont
 Country : United States
 LocInfo : NW side of Shelburne Pond in Shelburne bog
 Lat & Long : 44 22 N, 73 10 W
 Elevation : 100m
 Habitat : 3 meters from lake edge to bog edge, partial shade

CVAC 810
 Plantname : *Gaultheria hispidula* - Vermont collection
 Other Number : VT 2
 Form : FL 3 pots
 Herbarium :
 Photo : Roll 3
 Assoc. Plant : ferns, leatherleaf, sphagnum, E. Hemlock
 Comments : this plant looks strongly like that found at Dixville Notch
 in New Hampshire at an equivalent latitude

City : Franklin
 State : Vermont
 Country : United States
 LocInfo : off route 120 at Franklin Natural Area of the Nature Conserv
 Lat & Long : 44 55 N, 72 55 W
 Elevation : 125m
 Habitat : 6 meters from woods edge where bog begins

CVAC 811
Plantname : V. corymbosum - Vermont collection
Other Number : VT 3
Form : PL mist
Herbarium :
Photo : Roll 3
Assoc. Plant : ferns, leatherleaf, Cornus racemosa, Cornus sericea
Comments : very nice red foliage

Missisquoi National Wildlife Refuge
City : Maquon
State : Vermont
Country : United States
LocInfo : south off route 78 near Maquon Bog
Lat & Long : 44 55 N, 73 13 W
Elevation : 30m
Habitat : on old railroad bed now overgrown

CVAC 823
Plantname : V. macrocarpon
Other Number : NH 42
Form : PL
Herbarium :
Photo :
Assoc. Plant :
Comments : in a bog off rte 152
about 2.5 miles west of Newmarket

City : Newmarket
State : New Hampshire
Country : United States
LocInfo : growing around the edge of a sphagnum bog behind quarry
Lat & Long : 43 15 N, 71 00 W
Elevation : about 100m
Habitat : open sphagnum bog

CVAC 824
Plantname : V. macrocarpon
Other Number : NH 43
Form : PL
Herbarium :
Photo :
Assoc. Plant :
Comments : in a bog off rte 152 about 1 mile west of South Lee
This location will not support cranberries long other plants
are overgrowing, shading out, cranberries
City : South Lee
State : New Hampshire
Country : United States
LocInfo : about 1 mile west of South Lee
Lat & Long : 43 15 N, 71 10 W
Elevation : about 100m
Habitat : near road side this habitat soon to be lost

CVAC 825

Plantname : *V. macrocarpon*

Other Number : HH 14

F : PL

Herbarium :

Photo :

Assoc. Plant :

Comments : collected from an open sphagnum bog

City : East Barrington

State : New Hampshire

Country : United States

LocInfo : about 0.5 miles east of E. Barrington

Lat & Long : 43 25 N, 71 05

Elevation : About 100m

Habitat : open sphagnum bog scattered throughout bog