

Branch #2

Brushed 5-11-51

(114)

Polls Field

'30-

Table, summary of Cherry Plum pollenizers.

Season of bloom of pollenizers.

Variety

Early
P. F g | P F g | P F g

Safa

Compass

Opatá

Pollenizers

Variety
Pollenized.

Early

Med

Late

P F g | P F g | P F g

Safa.

P 66 Manon g-8A+55 M123

Conroy
g-2AS, 230

Pollenizer
Varieties.

P

F

g.

Rarely
F

g.

♀

Opata

vic.

30-5%

31-2

Sapa

1943

SECOND TEST RECORD

Fruit Blekeny Variety N3498 Alfred Location 11C-1a-43 to 54
 Breeding No. _____ Cross _____ Planted 1934

Crop Record		Fruit Adherence	Picking Date	Tree Notes.....
Date	% Crop			



1943 Record of Percent set.
Pollinizers

Variety Pollinized	Oka	1943		1944		Compars	Zumbra	#155	Huent#1	1944	1944	M119	Llura
		Safa	Opata	M118	Wachampa								
✓ #155	1.5 1.1	1.5 0	0 8	0 0	1 0	3 0							
✓ Oka		25.4 25.9	— 10	2 0	20 8	11.9 20	1.2 3.1	3					
✓ Opata	7.5 6.3	23.8 29.		1.8 0	30.7 22.6	12.1 18.7	27.6 8.	4 1					
✓ Safa	2.7 4.		12 5 5 0	.7 12 0 26	20.4 9.	10 11.3	3.8 1.3	— 0	?	10.6	5	14	
✓ M118	8 7	8.0 10.9 20.0	23 19	9.3 12.8	23.8 19.6	10 5.2	8 2.4		1.1	5.1		11.	
✓ Zumbra	7.7 0	17.8 10.5	3.4 1.6	4.5 2.2	27.3 24.1		3.8 3.5						
✓ Compars	0	8. 9.	3. 5.5	2.8 2.		2.7 4.7	4.3 4.3						
M119		12 8.3			5.7				1.2	10.6		7.6	
Llura		.7 8.9			2				2	8	0		
Wachampa									0	0		0	

Notes for 1944 pol. test.

try #376 as cheap plan pollmanys

Fruit S.C. Hyb. # 155 SEED AND SEEDLING RECORD Year Pollinated 1943
all these bagged May 13/43

LOCATION Breeding No.	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Matured	No. Plum Seed	No. Germinated	No. Sdgs. in Nursery		
22-1-5	#155 X OKA	5/19/43	65	1	15%	15%			
-1-5	" X SAPA	"	134	2	15%	15%			
1-6	" X SAPA	"	100	0	0%				
1-6	" X OKA	"	180	2	1.1%	1.1%			
6	" X OPATA	"	100	0	0%	4%			
5	" X OPATA	"	75	6	8%				
5	" X M 118	5/20/43	75	0	0%	0%			
6	" X M 118	5/20/43	100	0	0%	0%			
6	" X COMPASS	5/20/43	200	2	1%	1%			
8	" X COMPASS	5/20	150	1	1.6%				
8	" X ZUMBRA	5/20	100	3	3%	3%			
8	" X ZUMBRA	"	100	0	0%	15%			
			1379						
	" bagged - not checked		?	0					
	" " " "			0					
	" " " "			0					
	" " " "			0					

get over 1/2 g of seed on trees outside of bags

✓

Fruit Oka short pistils

SEED AND SEEDLING RECORD

Year Pollinated 43

Breeding No.	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Matured	No. Plump Seed	No. Germinated	No. Sdgs. in Nursery			
	<i>Bees working just inside</i> CROSS 5/20/43									
22-9-15	Oka x Sapa	5/19	126	32 = 25.4%	5.4% pollen	plentiful	Fol	looks good		
22-9-16	" "	5/19	54	14 = 25.9%	as good or better than outside bag					
22-9-15	" x Opata	5/19	50	0	least dead					
-16	" x OPATA	5/19/43	70	7	10%	plentiful		looks good		
22-9-15	" x # 155	5/19/43	83	1	1.2%	pollen	Fair			
22-9-16	" x # 155	5/19/43	130	4	3.1%					
22-9-16	" x HUEN #1 (N 9794)	5/19/43	66	2	3%	pollen	very scarce -	poor		
22-9-16	" x M 118	5/20	50	1	2%	pollen	9/10			
	" x M 118	5/20	100	0	0					
22-9-16	" x COMPASS	5/20	50	10	20%					
	" x "	5/20	75	6	8%					
-16	" x ZUMBRA	5/20	134	16	11.9%		= normal			
2-16	" x "	5/20	50	10	20%		"			
	bag - not husked			8						
	" " "			1						

988

V

SEED AND SEEDLING RECORD

Fruit OPATAYear Pollinated 1943dit

Breeding No.	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Matured	No. Plump Seed	% Germination	No. Sdgs. in Nursery			
NF-8154	OPATA X SAPA)	5/19/43	80	19		23.75				
	" X Sapa)	5/19	238	69		29.00				
	" X HUEN #1)	5/19	50	2		4.0				
	" X HUEN #1)	5/19	100	1		1.0				
	" X Compass)	5/19/43	100	37		37.0				
	" X ")	5/19/43	75	17		22.6				
	" X Zumbra)	5/19	190	23		12.1				
	" ")	"	80	15		18.7				
	" X #155)	"	112	30		27.6				
	" ")	"	200	16		8.0				
	" X OKA)	"	200	15		7.5				
	" X ")	"	175	11		6.28				
	" X M118)	"	113	2		1.77				
	" X ")	"	34	0		0				
				1747						

Fruit SAPA

SEED AND SEEDLING RECORD

Year Pollinated 1943

Breeding No.	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Matured	No. Plump Seed	No. Germinated	No. Sdgs. in Nursery		
	SAPA x # 155 22-8-13)	5/19/43	80	3		3.75			
	" x " 155 22-8-14)	"	75	1		1.33			
	SAPA x OPATA 22-8-13)	5/19	150	18		12.0	not enough.		
	" x " 22-8-14)	5/19	60	3		5.00	not enough.		
	Sapa x Huente 1 22-8-14)	5/19	55	0		0.0			
	SAPA x ZUMBRA)	5/19	90	9		10.0			
	x ZUMBRA)	5/19	44	5		11.3	not early up to unbagged.		
	Sapa x Comfan 22-8-13)	5/19	54	11		20.37			
	" x " 22-8-15)	5/19	90	10		9.			
	Sapa x oka 22-8-14)	5/19	75	2		2.66			
	" x OKA 22-8-15)	5/19	100	4		4.0			
	Sapa x M118 22-8-15)	5/19	140	1		0.7			
	" x M118 22-8-14)	5/19	100	0		0.0			
			113						
	" bagged - not brushed	probably	75	2		2.66			
	" " "	"	80	1		1.25			
	" " "	"	150	0		0.00			
	" " "	"	260	4					✓

June 11, 1943 Very light set on unbagged branches
N37 94 bagged (not brushed - bag partly open) — 4
" not brushed ————— 1
" " " ————— 0
" " " ————— 1

tree & none set under bags — tree weak

SEED AND SEEDLING RECORD

Fruit M 118

Year Pollinated 1943

Breeding No.	5/20/43	50-150	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Matured	% Plump Seed	No. Germinated	No. Sdgs. in Nursery			
22-4-9	M 118	X	O PATA	5/20	75	7	9.3					
4-11	"	X	"	5/21	117	15	12.8					
												pollen good Jan 11 - appears about 1/3 normal
4-9	"	X	SAPA	5/20	75	6	8.0					
4-10	"	X	Saba	5/21	110	12	10.9					pollen still v good
4-11	"	X	Saba	5/21	100	20	20.0					
4-9	"	X	Oka	5/20	50	4	8.0					
4-10	"	X	Oka	5/21	100	7	7.0					pollen nearly gone
4-9	"	X	#155	5/20	50	4	8.0					1/2 buds not yet open 5/20
4-10	"	X	#155	5/21	85	2	2.35					most of buds open 5/21 #155 nearly gone 5/21
4-9	"	X	Compass	5/20	42	10	23.8					
4-11	"	X	"	5/21	112	22	19.6					pollen only fair in quantity Jan 11 - almost as good as unbagged set
4-9	"	X	ZUMBRA	5/20	40	4	10.0					
4-10	"	X	Zumbra	5/21	135	7	5.18					pollen good 5/21
					1041							
					75	7	9.33					
					100+	0	0					

bag not bushed
" " " "

V

Fruit.....

Zumbra

5/21 weather has been ideal for pollinating on 19, 20 + 21/24. Light breeze, light sun, warm ground 70°

SEED AND SEEDLING RECORD

Year Pollinated..... 43

Breeding No.	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Matured	% Plump Seed	No. Germinated	No. Sdgs. in Nursery						
	Zumbra about 40%, 50% open 5/21				587								
22-8-18	Zumbra x M118	5/21	108	5	4.5								
22-8-19	" x "	5/21	93	2	2.15								
22-8-18	Zumbra x Safa	5/21	118	21	17.8								
22-8-19	" x "	5/21	123	13	10.5								
22-8-18	Zumbra x Compas	5/21	118	28	27.3%								
22-8-19	" x "	5/21	58	14	24.1%								
22-8-18	Zumbra x Opata	5/21	98	3	3.4%								
22-8-19	" x "	5/21	128	2	1.6%								
22-8-18	Zumbra x #155	5/21	68	6	8.8%								
22-8-20	Zumbra x #155	5/21	85	3	3.5%								
22-8-18	Zumbra x Oka (chollen about gone)	5/21	52	4	7.7%								
22-8-20	" x "		36	0	0								
	" not husked (5 lbs than cloth)	1507		2									
	" " "	1507		1									
					1075								

= about 1/2 normal.

(hand cracked)

✓

24-25-26
 Fruit Compass washed MAY 5/21 about 90% open! set. vonnell Year Pollinated 143

Breeding No.	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Matured	No. Plump Seed	No. Germinated	No. Sdgs. in Nursery
22-8-24	Compass x #155	5/21	115	5	43%		
22-8-25	" x "	5/21	117	5	43%		
22-8-25	Compass x ofata	5/21	132	4	3%		
22-8-24	Compass x ofata	5/21	127	7	5.5%		
22-8-25	Compass x M118	5/21	140	4	2.8%		
22-8-26	" x "	5/21	100	2	2.0% probably 20		1/4 sized fruits
22-8-24	Compass x Sapa	5/21	137	11	8%		
22-8-25	Compass x Sapa	5/21	100	9	9%		
22-8-25	Compass x Zumbra	5/21	150	4	2.7%		
22-8-26	" x "	5/21	170	8	4.7%		many 1/4 sized fruits
22-8-25	Compass x Opa (Pollen used up.)	5/21	100	0	0%		many partly developed
	"		1388				
	" hipped not bushed			300	2		
	" " " "			probably 250	2		
	" " " "			"	1		
	" " " "			"	2		



Fruit Pr. Tomentosa

SEED AND SEEDLING RECORD

set June 11

Year Pollinated 1943

Breeding No.	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Matured	No. Plump Seed	No. Germinated	No. Sdgs. in Nursery			
	Bagged April 28									
Pr. tom # 41	9-7-2	May 8	branch	0						
" #41		" 11	"	0						
" #41		"	not brushed	0						These brushed
" #41		"	not brushed	0						on May 8 when
" #17	9-6-14,15	May 8	branch	1						about 15% of blossoms
" #17	"	"	"	0						open.
" #17	not brushed	—	"	1						Brushed again May 11
" #17	"	—	"	0						bloom full & weather
										good.
" #42	9-6 (19-23)	brushed May 8	branch	0						
" #42				1						
" #42	not brushed	—		0						
" #42	"	—		1						
# #21	9-4 (19-23)	brushed May 8	"	0						
# 21	"	"	"	0						
# 21	bag open inside	—								good set
# 21	not brushed	—		0						
# 20	row 10	1 branch OK		0						
		other branches weak or dead		0						

5 20 63 64
SEED AND SEEDLING RECORD

Fruit Pr. Tomentosa

Set June 1/54 Year Pollinated 1944

Breeding No.	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Matured	No. Plump Seed	No. Germinated	No. Sdgs. in Nursery			
	Pr Tom #5 X #20	May 15	30	12	40					
	" X #64	"	110	21	19			nearly as good as outside bag.		
	" " X self	"	84	0	0			med blight started		
	" " X 60	"	40	4	10					
	" X 63	"	50	6	12					
one of these may be #60 x #20	{ #60 X #5	"	100	33	33					
		" #60 X #5	"	100	31	31				
	" " X 63	"	200	96	48					
	" " X self	"	125	2	10/45					
	" " X 64	"	170	68	40			outside bag		
	" #20 X #5	"	66	24	36			no blight on #20		
	" 20 X #64	"	93	40	43					
	" 20 X self	"	40	0	0					
	20 X 60	"	94	27	28.7					
	20 X 63	"	75	8	10.6					

1944

1377

153) 1000
950

SEED AND SEEDLING RECORD

Fruit

7. mentosa

Year Pollinated

1944

Breeding No.	CROSS		Date Pol.	No. Flrs. Pol.	No. Fruit Matured	No. Plum Seed	No. Germinated	No. Sdgs. in Nursery			
<i>large bloom</i>	# 64	X # 60	<i>5/15/44</i>	<i>87</i>	<i>47</i>	<i>54</i>	<i>looks</i>	<i>as full as open set</i>			
<i>pink calyx</i>	# 64	X # 63	"	<i>66</i>	<i>36</i>	<i>54.5</i>					
	# 64	X # 5	"	<i>63</i>	<i>18</i>	<i>28.5</i>					
	# 64	X # 20	"	<i>100</i>	<i>48</i>	<i>48</i>					
	# 64	X self	"	<i>117</i>	<i>68</i>	<i>61.5</i>	<i>looks even better than open set</i>				
	# 63	X # 5	"	<i>45</i>	<i>21</i>	<i>46.6</i>					
	# 63	X # 60	"	<i>115</i>	<i>90</i>	<i>78.2</i>					
	# 63	X # 20	"	<i>140</i>	<i>144</i>	<i>102</i>					
	# 63	X # 64	"	<i>104</i>	<i>68</i>	<i>65</i>					
	# 63	X self	"	<i>136</i>	<i>60</i>	<i>44</i>	<i>= open set</i>				
				<i>973</i>							

Fruit Cherry Plum

SEED AND SEEDLING RECORD

Set June 7th 1944 Year Pollinated 1944

Breeding No.	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Matured	No. Plump Seed	No. Germinated	No. Sdgs. in Nursery			
	M 119 X Sapa	5/12/44	100	12	12					
	" X #376 (pollen scarce)	"	84	1	1.2					
	" X Wachampa (good pollen)	"	75	8	10.6					
	" X Dura	(364)	105	8	7.6					letter than open
	this var. making vig new growth + quite free from blight. open air light.									
	SAPA X Wachampa	"	75	8	10.6					
	" X "	"	100	6	6					
	" X M 118 (poor pollen)	"	150	18	12					
	" X M 118	"	150	4	2.6					prob. to rot
	" X M 119	"	100	5	5					
	" X M 119	"	100	4	4					
	" X #376	"	155	1	.6					prob. to rot?
	" X #376	"	150	22	14.6					nearly = open air
	" X Dura	"	100	14	14					
	" X "	"	100	19	19					
	" X Opata	"	140	9	5					
	" X Opata	"	110	0	0					no brot.
	open air on this var very good. prob 25%									
										1430

This var. pretty old - petals peeling.

✓

Fruit SICH HYBRIDS

SEED AND SEEDLING RECORD

5/June 6/

Year Pollinated

1944

Breeding No.	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Matured	No. Plump Seed	No. Germinated	No. Sdgs. in Nursery
	M 118 X DURA	5/18/44	100	11	11		
	" X Wachampa	"	135	7	5 1/2		
	" X 376	"	90	1	1 1/2		
	" X Saka	"	120	34	23	open set	
	" X Saka	"	190	36	19	nearly = open set	
	" X M. 119	"	100	3	3		
	No light on fl. - little evidence on fruits. Heavy set (open)						
	Wachampa X M 119	"	60	0	0		
	" X Saka	"	135	1	7		
	" X "	"	155	6	3 1/2		
	" X #376	"	33	0	0		
	" X Dura	"	90	0	0		
	" X M 118		100	2	4		
			573				
	Good set on this one (open)	no light				set prob 15 to 20%	
155							

Fruit Pi. Domestica

SEED AND SEEDLING RECORD

1944

Set June 8

Year Pollinated

1944

Breeding No.	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Matured	No. Plump Seed	No. Germinated	No. Sdgs. in Nursery	% set
	KOSLOV X DIETZ	MAY 19	150	1/2 (one doubtful)				0
	KOSLOV X SELF	"	300	0				0
	" X Krikon	"	225	2				.9
	" X Mt Royal	"	200	0				0
	" X Rus. G. Gage		165	0				0
	Practically none anywhere on Koslov.							
Petal shed may be too old for good set.	Krikon X Rus. G. Gage (66-7-3)	"	75	8 1/2				10.7
	" X self	"	84	5				6.0
	" X Mt Royal	"	38	1				2.6
	" X KOSLOV	"	70	1				1.4
	" X DIETZ	"	65	2				3.1
	open set on Krikon is very good.							
	RUS. G. GAGE (66-8-2) selfed	5/16/44	125	0	hand dnd.			0
	note similar branch untraced	"		0	" "			0
	" " " " " " " "	"	100	0		frashes		0
	open set on Rus. G. Gage light but little blooming branches weak - no set. (1 similar to 66-8-2) open about 5							
	DIETZ X self (66-16-2)	5/19/44	200	45	= open set			22.5
	" X Krikon	"	100	52	= " "			52.0
	" X KRikon	"	150	38	= " "			25.3
	" X Mt Royal	"	250	74	= open			29.6
	" X RUS G. GAGE	"	150	108	= heavy set			70.2

Fruit *Pr. Domestica*

SEED AND SEEDLING RECORD

Set -

Year Pollinated 1944

Breeding No.	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Matured	No. Plump Segd	No. Germinated	No. Sdgs. in Nursery			
	<i>hoffelmacher</i> X self	May 19	80	19	23.4	75-80	1/2	permanent branches open.		
	MT. ROYAL X Rus. G GAGE	MAY 19	100	3	3.0			all these lagged branches		
	" " X DIETZ	"	170	4	2.4			the light are as good as open		15
	" " X KRIKON	"	66	3	4.5					
	" " X Koslov	"	138	2	1.4					
	" " X self	"	84	2	2.4					
				638						
	LUNN (54-13-21) X self	MAY 19						June 8 probably none set but		also set
	X self	"						hasnt dropped - check later		

Fruit S.C.H. HYB.

SEED AND SEEDLING RECORD

Set found Year Pollinated 1944

Breeding No.	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Matured	No. Pump Seed	No. Germinated	No. Sdgs. in Nursery			
	DURA X #376	5/19/44	100	2	2%			has twig blight		
	" X SAPA	"	72	6	8.3%			has twig blight		
	" X M118	"	70	4	5.7%					
	" X SAPA	"	135	1	.7%					
	" X Wachampa	"	115	1	.8%			twig blight		
	" X M119	"	50	0	0			" "		
	twig blight much worse under bags ⁵⁻⁴² was not much in evidence when bags removed.									
X	#376 X Sapa	"	125	0	0			all brown rot blighted		
	" X Sapa	"	50	0	0			light blight -		
	" X ⁹ Wachampa	"	175	0	0			all brown rot blight		
	" X ² #119	"	80	0	0			all B. rot blighted		
	" X ² #118	"	70	1	1.3			" " "		
	" X Lurd	"	120	0	0			all B. Rot blighted		
	this tree showing considerable blight, 6/20/44									

✓

Fruit *P. Japonica*

SEED AND SEEDLING RECORD

Set June 6⁴⁴ Year Pollinated 1944

Breeding No.	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Matured	No. Plump Seed	No. Germinated	No. Sdgs. in Nursery		
# 88	X Self	5/22	150	19	11.3				
"	X # 99	"	150	17	11.3				
"	X # 23	5/23	50	6	12.0 weak	branch			
"	X # 57	5/24	90	59	65.6				
# 99	X Self	"	150	112	74.7				
# 23	X # 23 (pollen)	"	125	37	29.6				
# 23	X Self	"	140	46	32.9				
# 23	X # 20	"	100	± 33	33.0				
# 23	X # 88	"	150+	60	40.0				
# 57	X Self	5/23/44	55	10	14.9				
"	X # 20	"	12	72	600.0				
"	X # 88 (Bee in here)	"	100	106	106.0				
"	X 23	"	200	142	71.0				
# 23	X # 57								

not enough but open is also lighted.
apparently selfed.
= prob 75% crop.
better estimate of crop later
 146.2

notes 6/6/45

6/6/45

Row 3 - 1708 sparse duller foliage spreading

N4082 9 to 16 ~~to 16~~ heavy foliage - bigger plants erect.

17 to ~~end~~ end sparse small leaves, spreading.

Row 4 - 9-16 not very plants. Dead.

1945

ORCHARD RECORD

Fruit... Raspberry Location... Blk. 13 Planting Date... 1930
 Breeding No. Ry. 277 Cross... num #167 X self

Row No.	Tree No.	First Fruited	Ripening Date	Trial No.	Number Date
3	36				
	37				
	38				
	39				
	40				
	41				
	42				
	43				
	44				
	45				
4	1				
	2				
	3				
	4				
	5				

Ry. 277

Ry. 277

1945 field tests with Hormone Sprays.

apricot sdgs. Block 21. Sprays applied 4/28/45.

Trees approaching full bloom. Sprayed branches encircled with bender twine. Trees numbered from north end. Notes 5/24/45.

1st row west of apple row 35 - #1 spray used.

	set on sprayed part		set on unsprayed part
Tree 2	1 fruit		0 fruits
" 6	0		0
" 14	0		0
" 19	0		0
" 52	0		0
" 55	0 1/5 of tree		8 at least 1/2 tree
" 66	0		0
" 76	0		0

2nd row west of apple row 35 #2 spray used.

tree 8	0	0
tree 20	0	0
tree 26	0	0
tree 37	0	0
tree 39	0	0
tree 45	0	0
tree 49	0	0

Practically all bloom + fruits destroyed by frosts in this orchard.

Hormone sprays on Sand cherry Nylb, Blk 22

#155 22-1-4...14

tree 11 #1 south half, 5/8/45 ✓

" 15 #2 south half, 5/8/45 ✓

" 25 #1 bagged ^{strayed} 5/8/45 ✓

#2 " 5/8/45 ✓

see further in book.

note too soon to tell set. - note #340 full bloom. 5/24/45

Compass near 8 part full bloom but some flowers OK, tree 25

tree 24

Sapa Row 8 - 8 - - - 15

tree 8 1 bag sprayed 5/8/45 #1 ✓

" 8 1 bag " " #2 ✓

" 9 sprayed West 1/2 tree #1, 5/10/45 (95% def) 6/20/45 good set 100% wholiter

" 10 " (West side only?) #2 " (" 6/20/45 10% set unsprayed 85%

" 11 1 bag sprayed 5/8/45 #1 ✓

" 12 1 " " " #2 ✓

" 14 sprayed 5/8/45 #1 (entire tree?) ✓ 90% set

blight not brown set

" 15 " " #2 (entire tree) ✓ 90% set

Hormone Springs Sand Chem/Kyle, Kkh 22 conf

Row 18 M119,

Use 21 Striped 1 bag # 13/8/45 ✓

" 24 " 1 bag # 2 5/8/45 ✓

* count checked 7/10/45

P. Tomentosa *Blick 23*

SEED AND SEEDLING RECORD

Set June 3 Year Pollinated 1945

Breeding No.	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Matured	No. Plump Seed	No. Germinated	No. Sdgs. in Nursery	old part	% bloom open
	Pa Tom # 63 x See Row 1-3	4/28	55	18	about = outside				85%
	63 Row 1-8	4/28	70	12	less than outside				85%
	# 64 Row 2-11	4/28	40	17	about 1/2 of outside				80
	# 64 " 2-11	"	25	6	bloom light				180
	N251 (From O. JENSEN) 1-22	4/28	40	10	25% set = outside				85
	1-22		95	23	25% set = outside				90
	# 20 row 3-2	4/28/45	150	30	open set med to good			10	60
	# 20 row 3-4	4/28/45	75	0	open set fair				50%
	N4082 3-11	4/28/45	100	0	open set light			25	100
	N4082 3-12	"	50	0				25	100
	# 61 3-19		37	0	open set light			10	100
	# 61 Row 3-20	4/24/45 4/28	50	0	" " "			10	90
	N4081 4-4	4/24/45 4/28	93	0	open med to light				65
	" 4-7	"	136	0	" " "				65
	# 62 4-10	4/28	40	0	open set is or light				25
	# 62 4-14	4/28	190	0	" " " "				50
	# 59 4-18	4/28	120	0	open set med to light				90
	# 59 4-21	"	160	1	" " " "				90
			1526						

Preliminary
 set June 4/24/45
 set June 4/28/45

Thin var fls by pedicels

60 foliage very sparse growth rather weak.

$$\begin{array}{r} 150 \overline{) 400} \quad 2.6 \\ \underline{300} \\ 100 \\ \underline{90} \\ 10 \end{array}$$

$$\begin{array}{r} 190 \overline{) 1100} \quad 5.8 \\ \underline{950} \\ 150 \\ \underline{150} \\ 0 \end{array}$$

$$\begin{array}{r} 125 \overline{) 250} \quad 2.0 \\ \underline{250} \\ 0 \end{array}$$

$$\begin{array}{r} 66 \overline{) 1000} \quad 15 \\ \underline{990} \\ 10 \\ \underline{66} \\ 340 \\ \underline{330} \\ 10 \end{array}$$

Fruit S. ch. hybrid

SEED AND SEEDLING RECORD

June 19/45
set

Year Pollinated 1945

Breeding No.	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Matured	No. Plump Seed	No. Germinated	No. Sdgs. in Nursery		
Row 12 tree 27	Sapa X M119 (no dust)	5/7/45	100	2	2%				
" 12 " 26	" X M119	"	200	2	1%				
" 12 " 25	" X M119 poor dust	5/8/45	125	2	1.6%				
" 12 " 25	" X M119	5/8/45	100	1	1%				
tree 12-27	Sapa X #376 - only fair pollen.	5/7/45	225	0	0				
" 12-26	" X " pollen scarce.	5/7/45	108	0	0				
12-27	Sapa X M120	5/8/45	66	1	1.5%				
tree 12-27	Sapa X M120	5/7/45	100	0	0				
" 12-25	" X M120	5/7/45	200	2	1%				
tree 12-26	Sapa X N39104 ^{SPRIS} (no dust)	5/7/45	140	0	0				
tree 12-25	" X " (no dust)	5/7/45	100	0	0				
	" X Self (not banded)		branch	1	← over				
tree 12-27	Sapa X M123 not much dust but fair	5/7/45	100	0	0				
tree 25	Sapa X M118, dust med	5/8/45	66	0	0				
tree 12-25	Sapa X M118	5/7/45	150	0	0				
26	" X M118 dust X banded	5/8/45	200	2	1%				
	M119 X M118		100	0	0				
Row 10-24	M119 X M123 pollen fair		100	0	0				
			540						
Row 10-24	M119 X Sapa		150	4	2.7%				
21	M119 X Sapa		190	11	about 20% crop				

Many Apricot very windy, cold
 Many Apricot & wild cherry very cold
 snow from 310F this AM.
 V.E.-DAY

washed only 1/2 of them
 Sapa about 10%
 open set on

washed only about 1/2 of bloom
 because short pollen

✓

Fruit Homore Sprays

SEED AND SEEDLING RECORD

Year Pollinated 1945

Breeding No.	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Matured	No. Plump Seed	No. Germinated	No. Sdgs. in Nursery			
	Laurent 4-1-1 (Spray #1) 5-10-45 low level little part full bloom			6/18/45				no diff with check	about 7% crop	
	" 4-1-4 (5-10-45) spray #2			"	"	"	"	"	5% crop	
young wood fruiting less	Hennepin 4-4-3 (Spray #1) 85% in bloom (55°F)			"				about = to checks	50% "	
(logged)	" 4-6-5 Sprayed #2 May 8			"				0 set	a lot of small undeveloped fruits yet	
(logged)	" 4-6-5 " #1 " 8			"				4 set	few " " "	
(logged)	" 4-6-12 " #1 " 8			"				13 set	many in "shuck" stage	± 8% crop
(logged)	" 4-6-12 " #2 " 8			"				6 "	" " "	± 8% "
	" 4-6-15 " #1 " 8							adjoining trees running	about 50% or less	75%
	" 4-5-15 " #2 " 8							stand off was check		50%
	Ember 4-8-20 " #1 " 8							0 set	practically none on open trees	
	Ember 4-8-22 " #2 " 8							0 "	" " " "	
	Hennepin 4-6-2 " #2 " 10 85% in bloom							about equal or slightly better than adjoining trees		± 50% "
	# 161 4-10-3 " #2							0 set (many 1/4 size yellow fruits)		20% crop on tree
	# 160 4-10-3 " #1							10 small doubtful but look like set		" " "
# 69	Current 10-58-7 " #1 5/4/45 full bloom			6/18/45				no effect -	all with good crops	
	10-64-3 " #1 nearly full			"	"	"	"	"	"	
Red Lake	10-41-(8 from S) #1 full bloom May 10			"				stand off with other plants		
"	10-41 (8 from S) #2 " "			"	"	"	"	"	"	
	10-38-(8 from S) #1 " "			"	"	"	"	"	"	

SEED AND SEEDLING RECORD

Fruit.....

Set June 19

Year Pollinated

45

Breeding No.	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Set	No. Plum Seed	No. Germinated	No. Sdgs. in Nursery			
	M 119 x hormone #1	May 8 '45	→	branch	0					
	M 119 x " #2	May 8		"	0					
	Sapa x self. (bagged not brushed)			branch	0					
	" x " (" " ")			"	0					
	" x " (" " ")			"	0					
	" x " (" " ")			"	1					
	#22 Row 8-8									
Sapa not bagged	hormone #2 (5/8/45)			branch	4	unsprayed	branches	100%		
"	" #1			"	0?	"	"	100%		
Sapa	22-8-11 [2 branches under bag] hormone #1	5/8/45		5	unsprayed	what branch unsprayed	141 fruits = ?	80% crop		
	22-8-12 [a big branch bagged] " #2	"		12	similar unsprayed	branch	more than	200 full		
	a number of flowers still on June 20/45									
	22-1-25 (bagged) hormone #1	"		branch	5	many of 4/4	open set about	5%		
	22-1-25 (" " #2	"		"	2+	" 1/4 "	" " "	5%		

1
2
3
4
5
6
7
8
9
10
11
12
13

Fruit

Hormone spray

SEED AND SEEDLING RECORD

Year Pollinated

45

Breeding No.	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Mated	No. Plump Seed	No. Germinated	No. Sdgs. in Nursery			
	#155 22-1-11 south 1/2 hormone #1	May 8	S 1/2	5%	about same	on N 1/2	not sprayed.			
	#155 22-1-15 " " " #2	"	N 1/2	5%	"	"	"	"	"	"
<i>Fanwood</i> treated branches coloring a little earlier.	#22 23-5-2 North + East hormone #1	4/28		65% set	on treated limbs.	50% on check.				
	#5 23-6-1 NW half Hormone #1	4/28		90% "	" sprayed limbs.	75% on check.				
	N4081 23-4-5 Eastside " #2	4/28		40% "	" " "	50% " "				
	#5 23-6-7 West side " #2	4/28		90% "	" " "	90% " "				
	#17 23-6-18 " " " #1	4/28		50% "	" " "	75% " "				
	#17 23-6-20 " " " #2	4/28		50% "	" " "	50% " "				
<i>Eng. Waller x Pinche</i>	7.65-29									
	Sprayed 2 trees that were open May 10. with both 1 + 2. No fruits set on either sprayed or checks. (Min. Temp. 5/8, 31°F snowed that day.)									
<i>Ember plum</i>	66-12-11 sprayed North limb, 5/10/45 #2 hormone.			Treated 10% set.	check 10% set.					
	66-12-10 " " " 5/10/45 #1 "			" 10% "	" 10% "					
<i>Golden Rod</i>	66-8-16 " 1/2 tree 5/10/45 #1			No fruits set.						
	" " " " #2			" "						
	Check 1/2 tree No fruits set.									
<i>Koolar 75% set</i>	66-4-15 sprayed 5/10/45 south branch #2			100% set.	check 100%					
<i>80% set</i>	" " " North " #1			" "	" "					

Fruit *Tomentosa*

SEED AND SEEDLING RECORD *Field Pol. 1946.*

9 May 46 Year Pollinated '46

Breeding No.	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Measured	No. Plum Seed	No. Germinated	No. Sdgs. in Nursery		
Unbrushed 10% of open set	Drilled & selfed 2 bags. 50% open. north branch	4/20/46		5 26	5% 25%	100% of open			fruit
	Blooming date: 4/20/46								
	Row 1. <i>Tomentosa</i> block 23, not brushed			104		as good as outside			
	#63. 10% open. did not brush	4/22	33 82	32 67	91.7	nearly as good as outside	4/22	about 80% open	
	(N251) about 10% open self 1 bag. one not brushed	4/20	100	63	63	nearly = to outside		90% open	
	Row 2 #64-10% open did not brush	4/22	80 76	91 80	80	as good as open	11/3	80% open	
	N251 15% open selfed 1 bag.	4/20	68	38	55.8	stand off with open		90%+	
	Row 3 #20 1% open; did not brush	4/22	100 2	0 66	0	10% open (this bag 1 ply)		50% open	
	" 3 ? 2nd unit. 50% open								
	" 3 #61 5% open								
	" 4 1st unit, 1% open								
	" 4 2nd unit 10% open								
	" 4 #59 10% open								
	Row 5 #22 1% open								
	Row 5 #60 2% open								
	Row 5 #41 10% open April 22 70% open large black fringe pink		50 90	42 14	2% 10%	of set in open later			
	Row 6 #5 10% open					15%			
	Row 6 #65 15% open selfed 2 bags	4/20	50 100	55 138	110.0 134.0				
	Row 6 #17 5% open of 1 bag not brushed not fully = to open								
	" 7 #42 2% open large pink								
	Row 1 single #63 1st set not brushed - set = 50% open								

seedling & pol. records 4/20/46
 1 bag each row not brushed

Unbrushed 40% of uncovered set

1946

1949 5/16 - { 5/16 - 5/17 - 5/18 - 5/19 - 5/20 - 5/21 - 5/22 - 5/23 - 5/24 - 5/25 - 5/26 - 5/27 - 5/28 - 5/29 - 5/30 - 5/31 }
 1944 5/13 - { 5/13 - 5/14 - 5/15 - 5/16 - 5/17 - 5/18 - 5/19 - 5/20 - 5/21 - 5/22 - 5/23 - 5/24 - 5/25 - 5/26 - 5/27 - 5/28 - 5/29 - 5/30 - 5/31 }
 1947 5/22 - { 5/22 - 5/23 - 5/24 - 5/25 - 5/26 - 5/27 - 5/28 - 5/29 - 5/30 - 5/31 }
 1946 4/29 { May 11 temperature dropped to 27°F, plus snow.
 " 12 " " " " about 29°F.

Sapa pol

1945 5/7
 1944 - 5/18
 1943 - 5/19
 1942 - 5/2 passed
 1941
 1940 5/19
 1939
 -ofata 1938 5/6
 1937
 1936
 1935 5/22
 1934 5/8
 oha 1933 5/19
 1932
 oha 1931 5/13

10 | 122

 12

1946

Early & med early Blammers

To be prelaminated

15 bags

Sapa

Q-8A-55
15-2-32,33

✓ P. Tam
#66

M 123
15-4-36,37

Conroy
15-4-30,31

✓ Q-7-50 (15-3-14)

✓ Q-7-65 (15-2-15)

✓ Q-2-5-230 (15-2-23)

14 bags

M 119

" "

"

"

2 bags

Dura (bag)
15-4-24

Sapa

4 bags

Q-8A-55

Sapa

M 123

4 bags

M 123

Sapa

Q-8A-55

4 bags

Conroy

Sapa

M 123

4 bags

Thermapin

P Tam #66

#66 (P. Tam)

Sapa (2 bags)

Sapa (2)

Thermapin (2)

1946 late bloomers.

Red Cortland x St Anthony
Compass

47 Q-55-14 15-3-25-

27 Q-8A-40 15-2-43, 44

~~52 M122 15-4-28, 29~~ very weak.

Q-13A-2 22-13-21 & 26

1946 General appearance of pollen as observed in bottles

good good	Q-2AS-230	very poor - none showing
" good 57	Q-8A-55	" " very little "
	M123	fair
	Conroy	excellent
	P. Tom # 66	good.
	M119	poor
	St Anthony	excellent
	Red Cortland	n.g. - poor
	Compass	fair
	Q-8A-40	medi ^{to} good
	Q-13A-2	fine good.
	# 340	medium ^{to} good presence.

Fruit *Cherry Plums*

SEED AND SEEDLING RECORD

set of 6 Year Pollinated *1946*

Breeding No.	CROSS		Date Pol.	No. Flrs. Pol.	No. Fruit Matured	No. Plump Seed	No. Germinated	No. Sdgs. in Nursery
	<i>Q-8A-55</i>	<i>x</i>	<i>M119</i>	<i>4/27</i>	<i>82</i>	<i>0</i>	<i>0</i>	
	<i>"</i>	<i>x</i>	<i>"</i>	<i>"</i>	<i>65</i>	<i>0</i>	<i>0</i>	
	<i>"</i>	<i>x</i>	<i>Sapa</i>	<i>"</i>	<i>83</i>	<i>1</i>	<i>1.17</i>	
	<i>"</i>	<i>x</i>	<i>"</i>	<i>"</i>	<i>51</i>	<i>11</i>	<i>22.1</i>	
<i>1</i>	<i>M119(22-</i>	<i>x</i>	<i>Pri. Tom. #66</i>	<i>"</i>	<i>175</i>	<i>0</i>	<i>0</i>	
	<i>"</i>	<i>x</i>	<i>" #66</i>	<i>"</i>	<i>150</i>	<i>1</i>	<i>.75</i>	
<i>2</i>	<i>"</i>	<i>x</i>	<i>Sapa</i>	<i>"</i>	<i>110</i>	<i>1</i>	<i>1.1</i>	
	<i>"</i>	<i>x</i>	<i>Sapa</i>	<i>"</i>	<i>90</i>	<i>8</i>	<i>8.1</i>	
<i>3</i>	<i>"</i>	<i>x</i>	<i>Conroy</i>	<i>"</i>	<i>125</i>	<i>2</i>	<i>2.2</i>	
	<i>"</i>	<i>x</i>	<i>"</i>	<i>"</i>	<i>270</i>	<i>0</i>	<i>0</i>	
<i>4</i>	<i>"</i>		<i>M123</i>	<i>"</i>	<i>150</i>	<i>1</i>	<i>.75</i>	
	<i>"</i>	<i>x</i>	<i>"</i>	<i>"</i>	<i>130</i>	<i>0</i>	<i>0</i>	
<i>5</i>	<i>"</i>	<i>x</i>	<i>Q-2AS-230</i>	<i>"</i>	<i>106</i>	<i>3</i>	<i>3.</i>	
	<i>"</i>	<i>x</i>	<i>"</i>	<i>"</i>	<i>55</i>	<i>0</i>	<i>0</i>	
<i>6</i>	<i>"</i>	<i>x</i>	<i>Q-8A-55</i>	<i>"</i>	<i>74</i>	<i>1</i>	<i>1.25</i>	
	<i>"</i>	<i>x</i>	<i>"</i>	<i>"</i>	<i>95</i>	<i>1</i>	<i>1.5</i>	
	<i>logged not brushed</i>				<i>1624</i>	<i>5</i>		
					<i>1805</i>			

✓

600 1000 1.7
1 $\frac{1}{100}$ $\frac{1}{6.2}$ 1000

$\frac{100}{120}$ of $7\frac{2}{3}$ $\frac{14}{3}$ 4.6

4
400
~~25~~ ×
3
13 $3\overline{)52}$ 17.3
150

SEED AND SEEDLING RECORD

Fruit Sch-hyb 5 Year Pollinated 1946

Breeding No.		CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Matured	No. Plump Seed	No. Germinated	No. Sdgs. in Nursery			
1	Sapa	X M 123 (pollen fine)	april 29	100	2	2					
	"	X " "	"	200	4	2					
2	"	X Conway (pollen looks v. good)	"	200	22	11					
	"	X " "	"	200	7	3.5					
3	"	X M 119 (pollen in g)	"	100	7	7					
	"	X M 119	"	60	1	1.7					
4	"	X Q-245 - 230	"	100	15	15					
	"	X " " "	"	75	6	8					
5	"	X Q-8A - 55 (fine pollen)	"	60	0	0					this hand about 1/2 in bloom
	"	X " " "	"	75	13	17.3					3/4 " "
6	"	X P. tom # 66 (pollen good)	"	150	7	4.6					
	"	X " " "	"	120	0	0					
					1440						
	M 123	X Sapa	april 29	75	0	0					
	"	X " "	"	50	0	0					
	M 123	X Conway	" 30	75	0	0					
	M 123	X Conway		66	2	3					
					1706						

April 29 weather ideal for bees.
 Sapa prime to work 50-90% open
 M 123 & Sapa same stage

elem not good both than M 119

266

✓

$$\frac{100}{40} \quad \frac{5}{2} \quad 3 \frac{2}{15}$$

SEED AND SEEDLING RECORD

Fruit.....

Year Pollinated

1946

set

Conroy: its all open
but terminals,
a few no pistils

Breeding No.	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Matured	No. Plump Seed	No. Germinated	No. Sdgs. in Nursery
Conroy X	Sapa	April 29	50	1	2		
" X	"	"	35	1	3		
Conroy X	M123	Apr 30	83	0	0		
" X	M123	"	43	0	0		
Hua (15-4-24) X	Sapa	"	50	8	16		
" X	"	"	40	3	7.2		
			Total				
			2009				

V

SEED AND SEEDLING RECORD

Year Pollinated

1946

Fruit

Breeding No.	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Matured	No. Plump Seed	No. Germinated	No. Sdls. in Nursery				
	Red Cortland X St. Anthony	May 5	200	0							
1	" " X " "	"	100	0							
	" " X Compass	"	200	1							
2	" " X "	"	100	3							
	" " X Q-8A-40	"	140	2							
3	" " X " " "	"	120	3							
	" " X Q-13A-2	"	100	0							
4	" " X " " "	"	150	0							
	" " X # 340	"	194	4							
5	" " X "	"	110	2							
6	340 " " selfed	"	about 75	0							
			2372								

set of the hail

1946 Census

07

	M119	Safa	Conroy	M123	♀-2A-23 (P. 27)	♀-8A-53	Red Carroll	Compass	♀-8A-40	♀-13A-2	#340	Stanching	P. #66	Hemifer
♀ ♀-8A-53-	0	✓												
M 119		✓	?	?	?	?							?	
Safa	✓		✓	✓	✓	✓							✓	
M123		0	?											
Conroy		?		0										
Stanching		✓												
Compass														
♀-8A-40														
♀-13A-2														
#340														
P. #66 Red Carroll		0												0
							?	?	0	?	?	0		

47

5/19/47

434 -

53-8-163 - badly winter injured

53-7-178 has defective blossoms, no petals, just the stamens present
petal projects out of bud before it opens or another defect

53-7-168

very small flowers, inconspicuous, petals very small
~~narrow~~ narrow, greenish white,

1947 Cherry Plum combinations to work.

g-8A-55 X3B

Safa, M119, M123, g-8A-55

Conway B 15-4-30,31 X Safa, M119, M123, g-8A-55 Helix

Ready made ahead of Safa

M119 B 22- X Safa, Conway, M123, g-8A-55 Helix

1/2 tree Ready made

M123 B 15-4-36,37 X Safa, Conway, M119, g-8A-55, Helix

(Compass) X SLE #27, Conway, M123, Red Cottled, g-55-14

~~M122 15-4-28,29 too weak,~~

latest of all

> Red Cottled 23- X g-55-14, Compass

> g-55-14 15-3-25 X Red Cottled, Compass,

Ready made some variation as Conway's not much ahead of g-55-14

Safa B 22

X M123 g-55-55 SLE #27 M119
23-16-12 23-7-1,2,3,4

Compass X Red Cottled, g-55-14, Conway,

22-12-25,26,27 get Pollen
Safa L ✓
22-10-21,24 M119 L ✓
15-1-23,24 M123 L ✓
15-1-23,26,37 M123 L ✓
15-2-32,33 g-8A-55 L ✓
22-10-9,10,11,12,13,20 Helix
15-4-30,31 Conway L ✓
23-16-12 Toka
23-7-1,2,3,4 SLE #27 L ✓
22-8-24,25,26 Compass L ✓
23-9-9,10 Red Cottled L ✓
15-3-25 g-55-14 L ✓

Red fleshed: #432 P. Spencer x Olden (5x) (large fruits) 2" x 1 5/8"

#437 Kage x Elephant Heart (4x) 1 7/8 x 1 5/8 100% open 5-7-156 #432 ?

75% bloom open 5-7-173 #437 ?

23-10-9 #383 L

Wed. May 21 '47

Cold (48°F) in morning, no bees around
until about 11 a.m. Cloudy - the fleecy kind with intervals of good sun.

P.M. Warmer - bees working fine

Condole	
SD #27	good pollen
Conroy	" "
Q-8A-55	poor "
Sapa	✓ good "
M 123	fairly good "
M 119	poor "
Red Cortland	✓ poor "
Compass	Fair "

May 22, 23, 24 rather cool but clear
- bees worked every day.
shower evening of 24
" 25 warm, sunny, heavy rain at night,
" 26 cool
" 27 cooler
" 28 very cold 37°F last night cloudy
no frost here but some reported
in St Louis Park
Red Cortland about 1/2 open
Compass in full bloom.

Fruit S.CH. - HYB.

SEED AND SEEDLING RECORD

Year Pollinated 1947

Breeding No.	CROSS		Date Pol.	No. Flrs. Pol.	No. Fruit Matured	No. Plump Seed	No. Germinated	No. Sdgs. in Nursery		
15-2-3233	Q-8A-55	X Sapa	May 21	90	25	27.7%				
		M 119	"	50	0	0				
		M 123	"	75	0	0				
				215		6/20				
22-10-21424	M 119	X Sapa	"	75	17	22.7				
		X Q-8A-55	"	130	1	.7				
		X Convoy	5/22	170	31	18.2				
		X M 123	"	105	0	0				
				500						
						6/20				
22-12-25, 26, 27	SAPA	X S.D #27	"	100	2	2.				
	"	X " fls thinned to 15	"	15	1	6.7				
	"	X M 123	"	100	0	0				
	"	X M 123 (to 27)	"	75	0	0				
	"	X Q-8A-55 to 26	"	200	0	0				
	"	X M 119 " 27	"	110	14	12.7				
	"	X M 119 " 26	"	125	7	5.6				
				725						

5/23/47 a delightful cool morning.
Bees quite active. No wind.

5/24/47 sunny cool breezy morning
Combs not far enough along to work. - put on 2 bags and quit.

SEED AND SEEDLING RECORD

Fruit.....

Year Pollinated 1947

Breeding No.	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Matured	No. Plump Seed	No. Germinated	No. Sdgs. in Nursery			
15-4-36	M123 X M119	5/22/47	60	2	33					
"	M123 X Q-8A-55	"	100	1	1.20					
"	M123 X Convoy	"	100	10	10.70			better than open set.		
"	M123 X Convoy	"	40	1	2.5					
"	M123 X Sapa	"	50	0	0					
1574-42	M123 X Sapa	"	55	0	0					
			405							
15-4-30-31	CONVOY X Q-8A-55	5/23/47	33	1	3.					
tree 30	" X M119	"	165	1	.6					
Tree 31	" X M123 tree 31	"	40	0	0					
	" X M123 tree 30	"	75	2	2.7					
tree 30	" X Sapa tree 30	"	120	2	1.7					
" 31	" X Sapa tree 31	"	125	1?	.8?					
	" X Compass tree 30	"	60	17	28.3					
	" X Compass tree 31	"	90	24	26.7					
			708							
	Compass X Convoy tree 24	5/24/47	60	6	10.0			interfered with set.		
	" " " 25	5/25/47	125	8	6.4					
	Compass X Red Cortland " 24	5/24/47	50	0	0					
	" " " 25	5/24/47	60	0	0					

152
177
118

258
705

479
140

619

SEED AND SEEDLING RECORD

Fruit.....

Year Pollinated

1947

Breeding No.	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Matured	No. Plump Seed	No. Germinated	No. Sdgs. in Nursery			
	Compass x M123 tree 24	5/25/47	50	0	0					
	" " " 25	"	150	1?	check later					
	Compass x J-55-14 tree 24	"	80	0?	"					
	" " " 25	"	110	0?	"					
	" x S. Lake 27 " 24	"	125	16+	12.8%					
			810							
	J-55-14 x Red Portland	5/28/47	110	0	0					
	" x "	"	100	0	0					
	" x Compass	"	80	24*	30%					
	" x "	"	75	22*	29.3					
			355							
	Red Portland x J-55-14	"	125	12	9.6					
	" " "	"	75	4	5.3					
	Red Portland x Compass	"	160	77*	48.1					
	" " "	"	90	43*	47.8					
	" x Conway	"	95	31*	32.6					
	" x Self	"	?	1						
			4253							
	Red Portland x									
	* better than open set.									

✓

The University of Minnesota
Experiment Station

FRUIT BREEDING RECORD

Fruit _____

Project _____

Breeding Record Number	PARENTS		Number of Flowers Pollinated	Number Set	No. of Fruit Set	No. of Plump Seeds	No. of Aborted Seeds	Number of Seedlings
	Pistillate ♀	Staminate ♂						
5/23/47	Mantet	#714 51-17-16	1159					
5/24/47	714	x Mantet ^{east side} 12-6-17	750					
"	714	x #978 ^{west side} 12-6-17	792					
"	Friende	x PSpfy 51-27-11	554					
"	Friende	x #978 51-27-10	498					
"	#978	x Friende 12-11-22	501					
"	#978	x #714 12-11-23	662					
"	PrairieSpfy	x Friende 51-2-6	1247					
"	Victory	x Redwell 21-2-8	619					
"	Minjon	x Redwell 51-25-7	705					
"	Redwell	x Victory 51-25-18	779					
	Redwell	x Minjon						

(10 loop) small short out
#225 \leftrightarrow Kaga 23-31-9, 10, 11, 12 66-5-17 66-8-12
x \leftrightarrow 101
x \leftrightarrow Toka 23-16-12
x \leftrightarrow S.D #27 (23-7-12, 3, 4) (4-8-1 to 13)
x \leftrightarrow Superior? 14-2-1 to 13
x Hennipin?
x Ember?

1948

Redcoat \leftrightarrow 225
x 101

#101 \leftrightarrow Kaga
 \leftrightarrow Toka
 \leftrightarrow S.D #27
x #225
 \leftrightarrow Superior

Varities	Toba	#101	#225	SLO 23	Superior	Ember	Hemphill	#89	Sofa	Granar	Compass	M123	g-84-55	Carway	no bags	
#225 ✓	2	2	2	2	2	2	2								Pol 5/7	10 X Blk bl
#101 ✓	2	2	2	2	2	2									Pol 5/7	8 X
Redcut	2	2														4
Toba ✓	2	2	2	2											Pol 5/7	8 6t Mars
SLO #24 ✓	2	2	2		2	2	2		2	2					Pol 5/8	16 # Blk 23
Ember ✓	2		2					2							Pol 5/8	8 X
Carway	2		2				2		2	2	2	2	2			14 X
Granar ✓	2		2			2			2	2	2	2	2		Pol 10 bags 5/4	14 X
M123 ✓	1		1						1	1	1	1	1		1 bag 5/8	7 X
g-84-55 ✓	2		2						2	2					Pol 5/8/4	8 X
Compass							2									4 X
#89 ✓			2		2				1	1	1				Pol 3/8/4	8 X
Sofa			2				2									4 X

1948

1948 Cheng-Plain region

(Convoy)
15-4-3031

- ↔ Sapa
- ↔ Manor (22-10-21, 24) (22-15-1, 2, 3, 4)
- ↔ Compas 22-8-24, 25, 26
- ↔ M123
- ↔ Q-8a-55
- ↔ Dura?
- ↔ SD #27 23-7-1, 2, 3, 4) (4-3-1, to 13
- ↔ Kaga? 23-31-9, 10, 11, 12
- ↔ ToKa? 23-16-12
- ↔ #89
- ↔ M123

M123

- ↔ Compas
- ↔ Sapa
- ↔ SD #27
- ↔ Kaga
- ToKa

U-10-10(22-15-17, 18, 19)

Very good pollen #89, sil.#27,
 Good " = ToKa, Manor, Compas, Convoy
 Fair " = Sapa, Ember, #101
 Poor " = #225, Q-8A-55

#89 + sil.#27 in bloom together & with Ember, 101
 They are little later than ToKa + 225 + Q-8A-55.
 " " " earlier than Manor, Convoy, M123, but are earlier
 all of these. The Compas + Sapa are ^{too} late for either 89, 55.
 Sapa should be early enough ordinarily but delayed
 this year acct winter injury.

Cy 3514-2

-6

2

SEED AND SEEDLING RECORD

Fruit

Plum

Year Pollinated

1948

Breeding No.	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Matured	No. Plump Seed	No. Germinated	No. Sdgs. in Nursery			
	Toka x #225	5/7/48	40	1	2.5					
	" x "	"	33	0	0					
	" x #101	5/6/48	19	0	0					
	" x "	5/7/48	42	1	2.4					
	" x S.A. #27	5/7/48	32	10	31.3					
	" x " "	(216)	50	4	8.					
	#225 x Toka	5/7/48	112	9	9.					
	" "	"	72	12	16.7					
	# " x #101	"	111	0	0					
	" x "	"	41	0	0					
	" x S. Lak #27	"	70	16	22.9					
	" "	"	45	3	6.7					
	" x #89	"	40	5	12.5					
	" "	"	45	15	33.3					
	" x Ember (Bee in bag.)	"	75	0	0					
	" x Ember	"	82	1 uncl.	1.2					
	16 tests			969						
		(193)								

5/7/48 bright, sunny. Light wind
 Temperature 56° F at 1 P.M. Bees working well,
 both Toka & #225 in full bloom. 1st flowers opened 5/3/48.

✓

Fruit Plum

SEED AND SEEDLING RECORD

4/10/48 2:50 PM Year Pollinated 1948

Breeding No.	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Matured	No. Plump Seed	No. Germinated	No. Sdigs. in Nursery				
→	#101 x 225	5/7/48	38	0	0						
	" x "	"	59	0	0						
	" x ToKa	"	35	0	0						
	" "	"	50	1	2%						
	" x SD#27	"	47	2	4.3						
	" x "	"	70	1	1.4						
	" x Ember	"	40	0	0						
	" x "	(37)	32	0	0						
	#89 x SD#27	5/8	35	2 weak	5.7						
	" x "	"	100	8 ⁶ ₁ weak	8%						
	#89 x Ember	"	155	0	0						
	" x "	"	90	1 weak	1.1						
	" x Conway	"	44	3 all weak	6.8						
	" x Sapa	"	60	4 all weak	6.6						
	" x Manor	"	9	0	0						
	" x Compass	"	14	1 (weak)	7.1						
		(50)									

Cool + windy 5/10/48
 #89 very short of fruit on West tree, some branches only 2/3 with fruit

Fruit Plum & Chomp Plum

SEED AND SEEDLING RECORD

Year Pollinated 1948

Breeding No.	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Matured	No. Plump Seed	No. Germinated	No. Sdgs. in Nursery			
	EMBER x TOKA	5/8/48	19	0	0					
	" x "	"	43	0	0					
	Ember x #89	"	25	5	20%					
	" x "	"	25	1	4%					
	" x SLD #27	"	13	1	7.7					
	" x " "	"	33	1	2.8					
	" x Conway	"	55	2	3.6					
	" x " "	"	38	1	2.6					
			253							
	q-8A-55 x Toka ^{vth}	5/9/48	65	5	7.7%					
	" x "	"	40	0	(cloth off branch stripped of leaves)					
	qu x S.L.#27 ^{Purple}	"	60	3	(branch broken off recently by cultivator)					
	" x "	"	15	0	0					
	" x Sapa ^{class}	"	25	4	16.					
	" x "	"	50	8	16.					
	" x Manor ^{ambly}	"	43	0	0					
	" x "	"	28	0	0					
					256					

173 ✓

5/10/48 cold, windy, cloudy, Temp. 49°F 1. Rain

Fruit Cherry Plum

SEED AND SEEDLING RECORD

Year Pollinated 1948

Breeding No.	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Matured	No. Plump Seed	No. Germinated	No. Sdgs. in Nursery			
M123	x Toka	5/8/48	40	4	10.8					
"	x S Lab #27	5/10/48	60	2	3.3					
"	x Sapa	5/10/48	40	0	0					
"	x Menor	5-13-48	50	5	10.					
"	x Compass	5-13-48	120	4	3.3					
"	x #89	7/10/48	60	5	9.3					
"	x Conway	"	40	4	10.					
	x S.D. #27		410							
	x Sapa									
	x Conway									
	x Q-82-55									
Compass	x #89	5-14-48	212	54	25.37					
"	x 89	"	166	28	16.9					
"	x Conway	5-13-48	65	14	21.5					
"	x Conway	"	130	16	12.3					
				112						

✓

Fruit Plum

SEED AND SEEDLING RECORD

Year Pollinated 1948

Breeding No.	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Matured	No. Plump Seed	No. Germinated	No. Sdgs. in Nursery			
	Silab #22 x Joka	5/8/48	90	2	2.2					
	" x "	"	115	8	(cloth made record)					
	" x #101	"	60	1	1.7					
	" x "	"	96	3	3.1					
	" x #225	"	140	4	2.9					
	" x "	"	75	0	0					
	" x Ember	"	70	2	2.0					
	" x "	"	121	4	3.3					
	" x #89	"	106	59	55.7					
	" x "	"	125	59	45.6					
	" x Sapa	"	74	3	4.1					
	" x "	"	94	2	2.1					
	" x Compass ^{Pratt's} _{W.K.}	"	171	2	1.2					
	" x "	"	98	4	4.1					
	" x Conway	"	115	10	8.7					
	" x "	"	115	14	12.2					
			total	1665						

Fruit Cherry Plum

SEED AND SEEDLING RECORD

^{90 set} Year Pollinated 1948

Breeding No.	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Matured	No. Plum Seed	No. Germinated	No. Sdgs. in Nursery			
	Manor x S. Dak #27	5/4	40	1	2.5					
	" x "	5/4	75	3	4.0					
	" x Toka	5/4	45	0	0					
	" "	5/11	25	2	9.					
	" x #89	5/8	42	1	2.4					
	" x "	5/8	35	3	8.6					
	" x Sapa	5/8	79	3	9.8					
	" x "	5/8	66	1	1.5					
	" x Conway	5/4	42	2	4.9					
	" "	5/11	33	3	9.1					
	" x Compare	5/11	66	3	4.5					
	" "	5/11	50	3	6.0					
	" x q-8A-55	5/8	35	1	2.9					
	" "									
	x # 89	5/11	75	8	10.7					
			709							
	Sapa x S.D #27	5-13-48	50							
	" x # 89	"	100							
	subtotal		858							

✓

Fruit

Cherry plum

SEED AND SEEDLING RECORD

6/11/48

Year Pollinated

1948

Breeding No.	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Matured	No. Plump Seed	No. Germinated	No. Sdgs. in Nursery
	Convey X Toka.	5-12-48	100	19	19.9		
	(Short pistils) X "	"	75	13	17.3		
	X S.D.#27	"	50	6	12.		
	X S.D.#27	"	180	1	1.		
	X #89	5-12-48	86	5	5.8		
	X #89		125	10	8.		
	X Sapa	5-13-48	75	2	2.7		
	X Sapa	"	25	1	4.		
	X Manor	"	100	1	1.		
	X Manor	"	90	5	5.5		
	X Compass	"	62	1	1.6		
	X Compass	"	138	13	9.4		
	X M123						
	X M123						
	X Q-7a-55	"	115	0	0		
	X Q-7a-55	"	110	1	.9		
			1251				
			2109				

May 13 parent tree weather
calm, sunny - less sap active

1950

No bees in orchard
May 25, 26 or 27, look for light
field set of cherry plum, terra,
weather fine sunny, warm, about 65°-70°
but some wind all these days.
All varieties opening
about together 1950.

1st & earliest like Mount aka
about 5/24
late ones like Comfoss + Zumbro 5/27

1950 Pollination Program

Safalta from Anderson
 Pol. abundant. Cactogony

Opatos & Conroy - Pol. abundant.
 Oka Pollen from
 Manor - scarce
 Nicolle pollen in good supply

Safalta x 1 1/2 bags
 → Safa
 → Opatos Pol. abundant
 → Conroy Pol. "
 → Compar
 → Manor
 Nicolle
 → Oka 2 bag

Safa x
 ✓ Nicolle
 Safalta
 Manor x
 → Opatos
 → Safalta

Opatos 4 bags
 → Manor
 → Conroy (2)
 → Safalta

Conroy x 6 bags
 ① Opatos ✓
 Oka? ✓
 Safalta ✓
 ② Safa ✓

Compar x 4 bags
 x Safalta ✓
 Manor ✓ poor pollen

Nicolle x 6 bags
 Safalta 7 ✓
 Conroy ✓
 Manor ✓

M123 1 bag x Safalta ✓

WELLS CITY
MILK FEEDS

30) 11.00 22.00
100
100

Fruit Cherry Plum

SEED AND SEEDLING RECORD

Year Pollinated 50

Breeding No.	CROSS	Date Pol.	No. Flrs. Pol.	No. Fruit Matured	No. Plum Seed	No. Germinated	No. Sdgs. in Nursery			
	^{Product} Manor x ofata	5/26	63	0	10					
	" x "	"	19	1	5.2					
	" x Sapatla	5/26	10	5	50.0					
	" x "	"	37	9	24.3					
	" x Okia	"	10	1	10.0					
	" x " } Pollen Very scarce	"	23	0	100					
	Microlit x Sapatla	5/27	50	6	12.0					
	" x "	"	40	7	17.5					
	" x Conroy	5/27	100	8	8.0					
	" x "	"	50	4	8.0					
	" x Manor (no dust)	"	50	1	2.0					
	" x Sapatla	"	50	11	22.0					
	Compass x Sapatla	5/27	75	25	33.3					
	" x "	"	75	14	18.6					
	" x Manor	"	100	17?	15.0					
	" x "	"	50	2?	4.0					
	SAPA x SAPALTA	5/20	90	0	0					
	" x "	"	75	0	0					
	" x NICOLLET	"	100	23	23.0					
	" x "	"	75	13+	17.3					

Pollen still plenty

(11) 42

May 11 1951
 Pollination studies 1951. (continued)
 total suggested 47

Africots Bag + self a few varieties.

♀	♀	pollinating ♂	♀	♀	♀	♀	
Cherry Plum	manor	oka	opata	Sapa	Safatta	Conway	Confass
manor B16							
Oka	X				X	X	
Sapa		X			X		
Safatta	X			X			
M123 α18	G			Px	Px	G	F
P. 7mm #66							X

(3)?

51

<u>European Plum</u>	mt Royal	Rus. green gaze	liety	Kukon	Bonne Ste Anne
Russian green gaze	X	X	X	X	X
mt Royal		X			X
liety		X			X
Kukon	X	X	X		X
Bonne Ste Anne	X	X	X	X	X

(18)

(17)

<u>P. japonica</u>	#20	#46	#60
#20	X		X
#46		F X	X
#57			X?
#23			X?

(6)

<u>Hyb. Plums</u>	Superior	Redglow	Pol. Toka	Pol. S. Blak.	Tecumseh
Toka					
Hemefin	X	X			X?
Redcoat	X	X			X
Superior	X	X			X
Redglow	X	X			X
S. Blak.	X	X			X?
Tecumseh	X?	X?	X2	X2	X?

(12)

♀ 1951

* Manor 18-6-2, 5, 8, 11 etc

2 bags ✓

* ~~OKA 22-13-11, 12~~

~~6 "~~

* SAVA 60-1-9 to 15

4 "

* SAPALTA 22C-5-20, 21, 23, 24, 25, 26, 27

4 " late ✓

* M 123 18

4 " ✓

P. tom 66 near full bloom may 1951 = in with earliest plums. P. tom all in flower

* O PATA 22-14-13, 14, 15, 16

* Conroy B115 (P. 6)

* Compass B118

HYBRID PLUM.

* Henruffin 4-4-1 to 26

3
♀ X bags ✓

* Redcoat 23-5-10, 12

4 " ✓

* Superior 4-2-1 to 13

2 "

* Redglow { 4-1-14 to 25
23-23-1, 2, 3, 4, 5, 7, 8

2 "

✓ * S. Dakota 23-23-9, 10, 11, 12

2 " ✓

✓ * Tecumseh 23-5, 6, 7

4-4, 6 ✓

✓ * Toke

2 ✓

* collected for plum ✓ jerked * Tecumseh flowers are mostly with poor or no pistils. Bloom today is all out heavy - bees active may 1951

