

BOF 14 - INTERIM REPORT

Narcissus; Tazetta Project for Isles of Scilly

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Location: Trenoweth, Isles of Scilly

Start Date: 1 August 1988

Introduction

Tazetta seedlings raised by Barbara Fry at Rosewarne EHS were acquired by an approved consortium of Island growers. Those seedlings showing commercial promise will be identified by the growers and eventually supplement bulb stocks on the Islands.

Objective

The objective of this joint ADAS/HDC/Duchy of Cornwall and Island Grower project is to select and develop tazetta narcissus seedlings from the Rosewarne Breeding programme and release to the industry, those showing either improved quality or contributing to an extension of the picking season.

Method

Eighty five plots of 24 bulbs consisting of upto 50 selected tazetta varieties, from the Rosewarne Experimental Horticultural Station's Breeding programme were planted as unreplicated, unrandomized blocks.

Plantings took place in 1988 and 1989. Each year varieties were planted in two blocks, one to be subjected to burning over to advance the crop and the other left unburnt to determine natural season flowering. Burning over took place 3 times at weekly intervals during August 1991 on both years plantings. Therefore the 1988 plots have now been burnt over 3 years in succession whereas the 1989 plots were burnt over for the second time this year (1991).

Records are taken of emergence, 1st, 50% and 100% flowering dates enabling flowering period to be determined. Flowers are left to develop on the plots to enable quality assessments to be made.

The following results are from the 1988 plantings following 2 years of burning over along with the corresponding unburnt plots.

Results

Table 1**Isles of Scilly - Trenoweth Tazetta Seedling Contract C011001 (previously C88/0438)**

2nd year - Unburnt

1990/91 Season

Seedling	Emergence date	Flowering dates			Duration (days)	Flowers /plot/ kg
		1st	50%	Last		
69/299/2	17-9	8-10	12-11	17-12	70	42
69/299/5	10-9	5-11	10-12	19-1	75	27
69/299/9	3-9	29-10	5-11	17-12	49	34
69/299/18	17-9	22-10	19-11	17-12	56	23
69/299/19	24-9	17-12	19-1	15-2	60	33
69/299/22	17-9	19-11	3-12	19-1	61	38
69/305/3	17-9	5-11	10-12	19-1	75	26
69/305/5	3-9	19-11	17-12	15-2	60	53
69/305/8	1-10	19-11	24-12	19-1	61	35
69/305/9	17-9	29-10	12-11	10-12	42	39
69/305/10	17-9	19-11	19-1	15-2	88	48
69/307/10	17-9	19-11	3-12	24-12	35	40
71/485/1	3-9	29-10	19-11	10-12	42	20
71/485/2	17-9	10-1	5-2	11-2	32	11
71/486/4	15-10	26-11	10-2	1-3	95	56
76/144/3	3-9	5-11	19-11	10-1	66	59
76/145/1	20-8	24-9	22-10	19-11	56	17
76/147/1	15-10	19-11	26-11	24-12	35	54
76/147/2	24-9	3-12	24-12	19-1	47	44
76/148/1	17-9	5-11	10-12	10-1	66	48
76/149/1	1-10	19-11	24-12	15-1	57	50
76/149/2	8-10	19-1	15-2	1-3	41	60
77/62/1	1-10	15-1	21-2	10-3	54	42
77/66/1	1-10	19-11	24-12	19-1	61	29
77/91/1	8-10	26-11	4-1	19-1	54	27
78/77/1	15-10	25-2	10-3	20-3	23	42
78/77/2	12-11	16-3	25-3	2-4	17	12
78/80/1	1-10	10-3	20-3	23-3	13	36
78/84/3	24-9	17-12	19-1	20-2	65	44
78/87/2	24-9	26-11	1-2	15-2	53	39
78/87/10	15-10	1-3	15-3	20-3	19	27
78/87/11	8-10	5-2	22-2	8-3	31	52
78/87/13	1-10	5-2	20-2	8-3	31	40
78/87/18	8-10	26-2	15-3	20-3	22	51

Table 1 cont

Isles of Scilly - Trenoweth Tazetta Seedling Contract C011001 (previously C88/0438)

2nd year - Unburnt

1990/91 Season

Seedling	Emergence date	Flowering dates			Duration (days)	Flowers /plot/ kg
		1st	50%	Last		
78/87/19	1-10	5-2	25-2	15-3	38	31
78/87/20	10-9	19-11	4-1	25-1	67	40
78/87/21	8-10	26-2	15-3	23-3	25	39
78/87/22	1-10	3-12	15-1	15-2	74	54
78/88/1	22-10	28-2	12-3	20-3	20	53
78/91/1	1-10	5-11	3-12	19-1	75	31
78/94/11	3-9	1-2	10-2	1-3	28	(25)
78/94/12	3-9	12-11	1-1	19-1	68	14
78/95/1	29-10	20-3	23-3	29-3	9	40
78/95/2	12-11	23-3	29-3	3-4	11	34
78/95/3	22-10	9-3	14-3	25-3	16	47
78/110/1	15-10	11-1	15-2	20-2	40	32
81/9/1	1-10	14-1	15-2	10-3	55	(43)
81/13/1	24-9	19-1	1-3	12-3	52	76
81/14/1	20-8	12-11	3-12	19-1	68	36
82/1/1	1-10	10-1	5-2	15-2	35	75

Table 2

Isles of Scilly - Trenoweth Tazetta Seedling Contract C011001 (previously C88/0438)

2nd year - Burnt

1990/91 Season

Seedling	Emergence date	Flowering dates			Duration (days)	Flowers /plot/ kg
		1st	50%	Last		
69/299/2	17-9	22-10	12-11	17-12	56	43
69/299/5	28-8	15-10	19-11	19-1	96	43
69/299/9	3-9	22-10	29-10	17-12	56	43
69/299/18	10-9	15-10	5-11	17-12	63	41
69/299/19	17-9	3-12	19-1	15-2	74	42
69/299/22	17-9	29-10	26-11	19-1	82	43
69/305/3	10-9	5-11	26-11	24-12	49	49
69/305/5	3-9	5-11	26-11	24-12	49	47
69/305/8	17-9	29-10	19-11	24-12	56	45
69/305/9	17-9	15-10	5-11	10-12	56	56
69/305/10	10-9	26-11	19-1	15-2	81	54
69/307/10	3-9	5-11	19-11	24-12	49	56
71/485/1	27-8	22-10	5-11	10-12	49	31
71/485/2	17-9	26-11	19-1	10-2	76	14
71/486/4	22-10	4-1	15-2	1-3	56	55
76/144/3	3-9	5-11	19-11	17-12	42	62
76/145/1	20-8	1-10	22-10	19-11	49	48
76/147/2	24-9	3-12	10-1	15-2	74	54
76/148/1	17-9	19-11	17-12	4-1	46	45
76/149/1	1-10	12-11	17-12	19-1	68	50
76/149/2	1-10	3-12	24-12	19-1	47	69
77/62/1	24-9	19-1	20-2	5-3	45	44
77/91/1	17-9	12-11	24-12	19-1	68	27
78/77/1	8-10	25-2	11-3	20-3	23	44
78/80/1	1-10	1-3	11-3	21-3	20	56
78/84/3	24-9	11-1	19-1	15-2	35	51
78/87/2	10-9	19-11	19-1	15-2	88	35
78/87/10	1-10	25-2	3-3	11-3	14	68
78/87/11	24-9	16-1	5-2	1-3	44	68
78/87/18	1-10	22-1	15-2	1-3	38	72
78/87/19	8-10	17-12	1-3	10-3	83	33
78/87/20	10-9	12-11	10-12	22-1	71	50
78/88/1	15-10	25-2	5-3	14-3	17	78
78/91/1	10-9	22-10	12-11	24-12	63	43
81/14/1	13-8	12-11	26-11	10-1	59	54

Table 3

Isles of Scilly, Trenoweth Tazetta Seedling Contract - C011001 (previously C88/0438)
1990/91 Season

2nd year - Burnt vs Unburnt. Comparison of 50% flowering data

Seedling	Burnt	Unburnt	+ days
69/299/2	12-11	12-11	0
69/299/5	19-11	10-12	+21
69/299/9	29-10	5-11	+ 7
69/299/18	5-11	19-11	+14
69/299/19	19-1	19-1	0
69/299/22	26-11	3-12	+ 7
69/305/3	26-11	10-12	+14
69/305/5	26-11	17-12	+21
69/305/8	19-11	24-12	+35
69/305/9	5-11	12-11	+ 7
69/305/10	19-1	19-1	0
69/307/10	19-11	3-12	+14
71/485/1	5-11	19-11	+14
71/485/2	19-1	5-2	+17
71/486/4	15-2	10-2	- 5
76/144/3	19-11	19-11	0
76/145/1	22-10	22-10	0
76/147/1	NR	26-11	NR
76/147/2	10-1	24-12	-17
76/148/1	17-12	10-12	- 7
76/149/1	17-12	24-12	+ 7
76/149/2	24-12	15-2	+53
77/62/1	20-2	21-2	+ 1
77/66/1	NR	24-12	NR
77/91/1	24-12	4-1	+11
78/77/1	11-3	10-3	- 1
78/77/2	NR	25-3	NR
78/80/1	11-3	20-3	+ 9
78/84/3	19-1	19-1	0
78/87/2	19-1	1-2	+13
78/87/10	3-3	15-3	+12
78/87/11	5-2	22-2	+17
78/87/13	NR	20-2	NR
78/87/18	15-2	15-3	+28
78/87/19	1-3	25-2	- 4
78/87/20	10-12	4-1	+25
78/87/21	NR	15-3	NR

Table 3 cont

Isles of Scilly, Trenoweth Tazetta Seedling Contract - C011001 (previously C88/0438)
1990/91 Season

2nd year - Burnt vs Unburnt. Comparison of 50% flowering data

Seedling	Burnt	Unburnt	+ days
78/87/22	NR	15-1	NR
78/88/1	5-3	12-3	+ 7
78/91/1	12-11	3-12	+21
78/94/11	NR	10-2	NR
78/94/12	NR	1-1	NR
78/95/1	NR	23-3	NR
78/95/2	NR	29-3	NR
78/95/3	NR	14-3	NR
78/110/1	NR	15-2	NR
81/9/1	NR	15-2	NR
81/13/1	NR	1-3	NR
81/14/1	26-11	3-12	+ 7
82/1/1	NR	5-2	NR

Key NR - No Records

Interim Conclusions

Selection of new varieties for commercial use is a slow process. Flowering dates and quality varies not only from season to season, but seem to be affected by burning over as well. By accumulating data over several years it should be possible to identify new varieties to replace or supplement existing stocks. New varieties would either replace inferior quality flowers or supplement existing production by extending the flower season. Several varieties have already shown promise under trial conditions.

No further discards were made during the 1990/91 flower season, but some stocks have been identified for rejection if they perform below par for the 1991/92 flower season. 1990/91 saw the first comparison between unburnt and burnt over stocks. As expected, the majority of the burnt over stocks flowered earlier than the unburnt ones, some by a large degree. Others did not benefit and, in certain cases, appeared to be retarded by the treatment.

Future Work

Further evaluation will take place at Trenoweth over the coming flower season (1991/92). Stocks have been burnt over during the summer (1991) despite the rainfall which fell in the south west.

This will continue each year to enable better comparisons to be made between burning over and leaving the stock unburnt.

Comparisons of these newer varieties need to be made against established Scillonian flower stocks and there should be incorporated into future trials to enable a direct comparison to be made.