

# Mr Richard Hurndall

## DFPT Technical Services

### South Africa

**DFPT**



**S P T**

DECIDUOUS FRUIT PRODUCERS' TRUST

# PRODUCERS

SAAPPA

SAT

SASPA

DFPT Research



DFPT

Statutory  
funding

DFPT Fin  
(S 21)

SB Trust

Industry Trust  
(GF)

Exporters'  
Forum

Dried /  
Canning

SAPO  
Trust

DFPT Technical  
Services

Hortec (Pty)  
Ltd

# Maturity indexing process

Weekly sampling & analysis

Duplicate storage sample in RA

Evaluated after 12 weeks & shelf life

## Maturity / RA storage trial

Mineral analysis

62 days after full bloom

2 weeks before harvest

Four harvest dates

4, 8, 12, 16, 20, 24 storage weeks

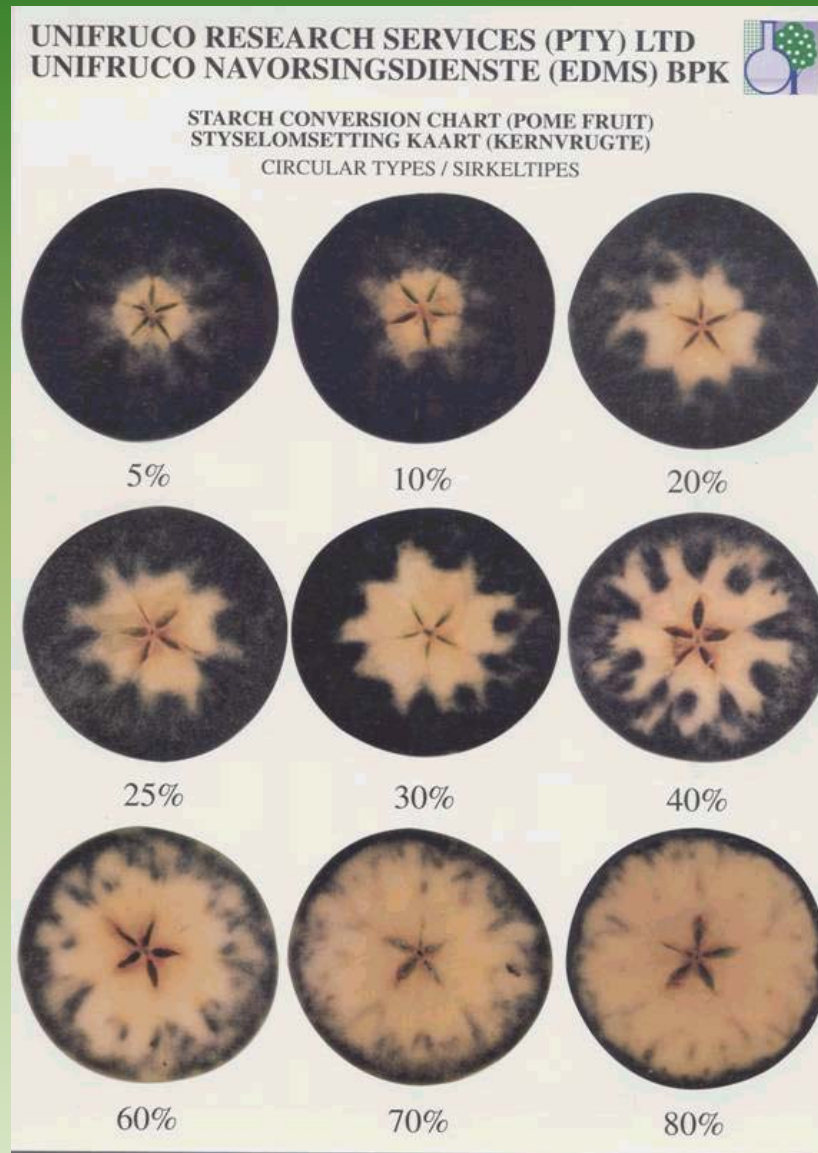
# Maturity indices – long term data

Week No	Release Date	DAFB	Fruit Size(mm)	Firm (lbs)	Firm (kg)	Skin Colour	Seed Colour	% TSS	% Acid	Starch % White
14.1	31-Mar-98	175	67.0	19.0	8.6	2.4	5.6	12.4	0.77	6.0
14.0	01-Apr-99	174	69.4	18.5	8.4	2.3	5.4	12.8	0.69	9.5
13.2	27-Mar-00	162	65.9	19.8	9.0	2.2	6.0	12.8	0.72	9.5
<b>13.8</b>	<b>31-Mar</b>	<b>170</b>	<b>67.4</b>	<b>19.1</b>	<b>8.7</b>	<b>2.3</b>	<b>5.7</b>	<b>12.7</b>	<b>0.73</b>	<b>8.3</b>

**TABLE 2: Longterm averages for weekly changes in maturity indices (1998-2002)**

Week No	Date	DAFB	Fruit Size(mm)	Firm (lbs)	Firm (kg)	Skin Colour	Seed Colour	% TSS	% Acid	Starch % White
11	12-Mar	150	65.6	17.2	9.7	2.2	5.0	11.5	0.81	0.7
12	19-Mar	156	67.8	20.7	9.4	2.2	5.3	12.0	0.78	2.8
13	26-Mar	163	69.1	20.1	9.1	2.2	5.6	12.5	0.75	5.2
14	02-Apr	170	69.6	19.6	8.9	2.4	5.7	12.9	0.75	12.9
15	09-Apr	177	70.6	18.9	8.6	2.5	5.9	13.3	0.74	21.3
16	16-Apr	184	70.9	18.3	8.3	2.7	6.0	13.6	0.70	30.4
17	23-Apr	192	71.4	17.6	8.0	2.7	6.0	13.6	0.67	39.2
18	30-Apr	199	72.0	17.1	7.8	2.8	6.0	13.4	0.63	45.4
19	07-May	205	73.7	16.8	7.6	2.9	6.0	13.6	0.58	49.7

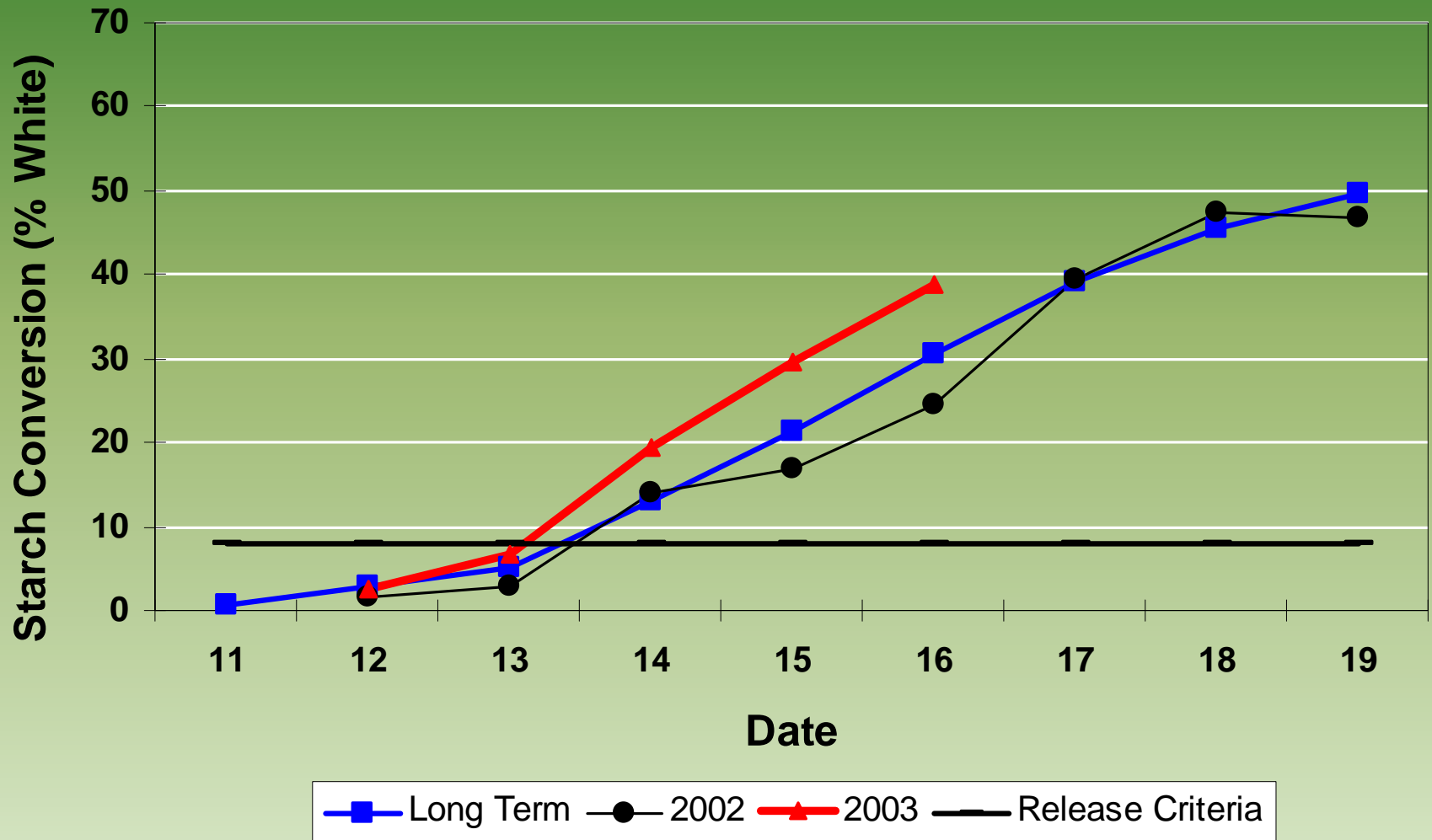
# Starch conversion chart



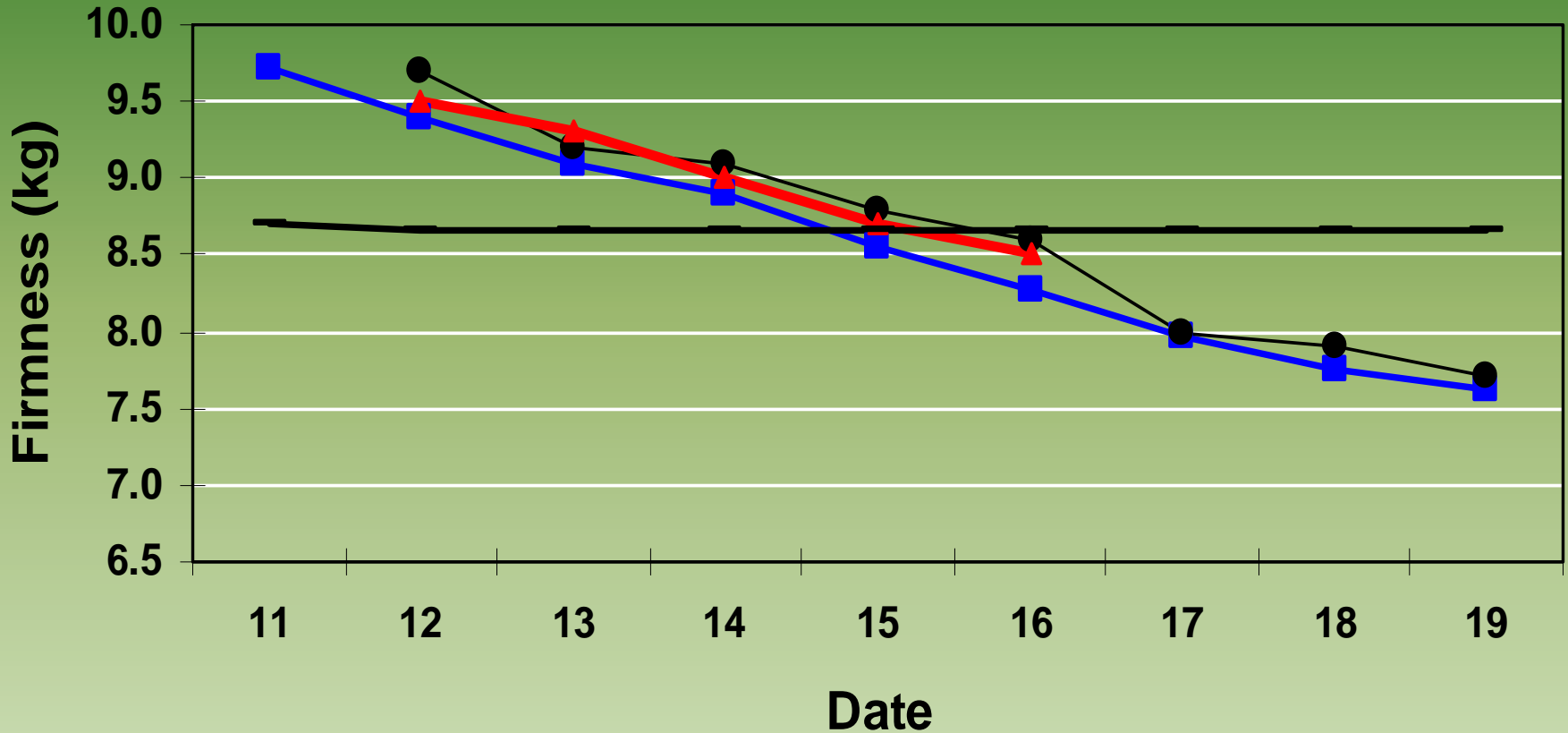
# Pink Lady Bulletin

<b>PINK LADY</b>											
<b>SUMMARISED MATURITY FIGURES AND RELEASE DATES</b>											
Area	Week no.	Date	DAFB	Fruit	Firm	Firm	Skin	Seed	%	%	Starch
				Size(mm)	(lbs)	(kg)	Colour	Colour	TSS	Acid	%White
Elgin/Vyeb/Vill '03	12	17-Mar	158	74.4	20.9	9.5	2.0	5.6	12.4	0.75	2.7
Elgin/Vyeb/Vill '03	13	24-Mar	165	75.1	20.5	9.3	2.1	6.0	12.5	0.71	6.8
Elgin/Vyeb/Vill '03	14	31-Mar	172	74.2	19.8	9.0	2.1	6.0	12.9	0.70	19.3
<b>Elgin/Vyeb/Vill '03</b>	<b>15</b>	<b>7-Apr</b>	<b>179</b>	<b>75.9</b>	<b>19.2</b>	<b>8.7</b>	<b>2.3</b>	<b>6.0</b>	<b>13.3</b>	<b>0.66</b>	<b>29.5</b>
Elgin/Vyeb/Vill '02	15	8-Apr	175	73.3	19.4	8.8	2.8	6.0	13.3	0.73	17.0
Longterm avg	15	9-Apr	177	70.6	18.9	8.6	2.5	5.9	13.3	0.74	21.3

# Starch: long term vs. 2002, 2003

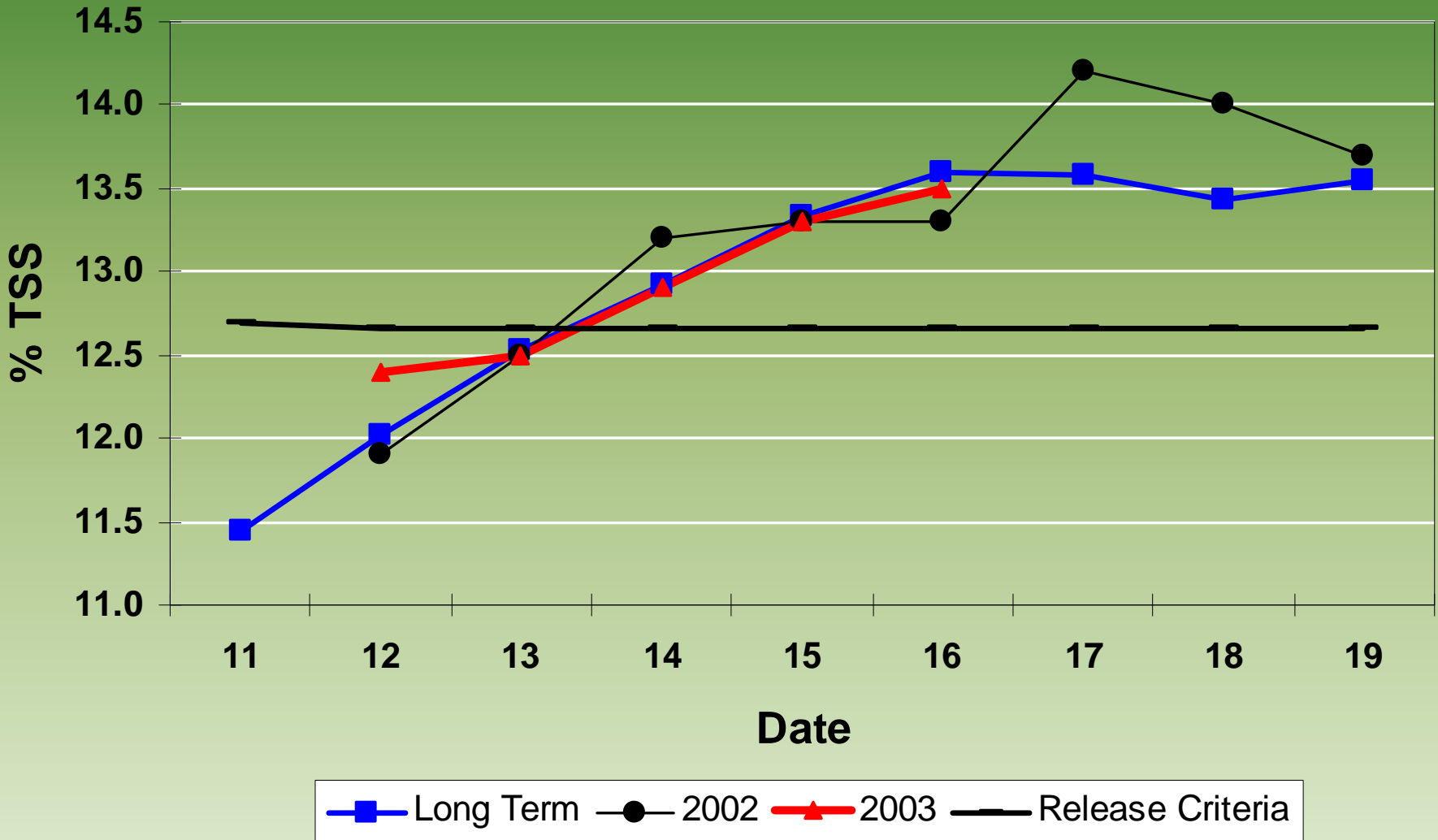


# Firmness: long term vs. 2002, 2003

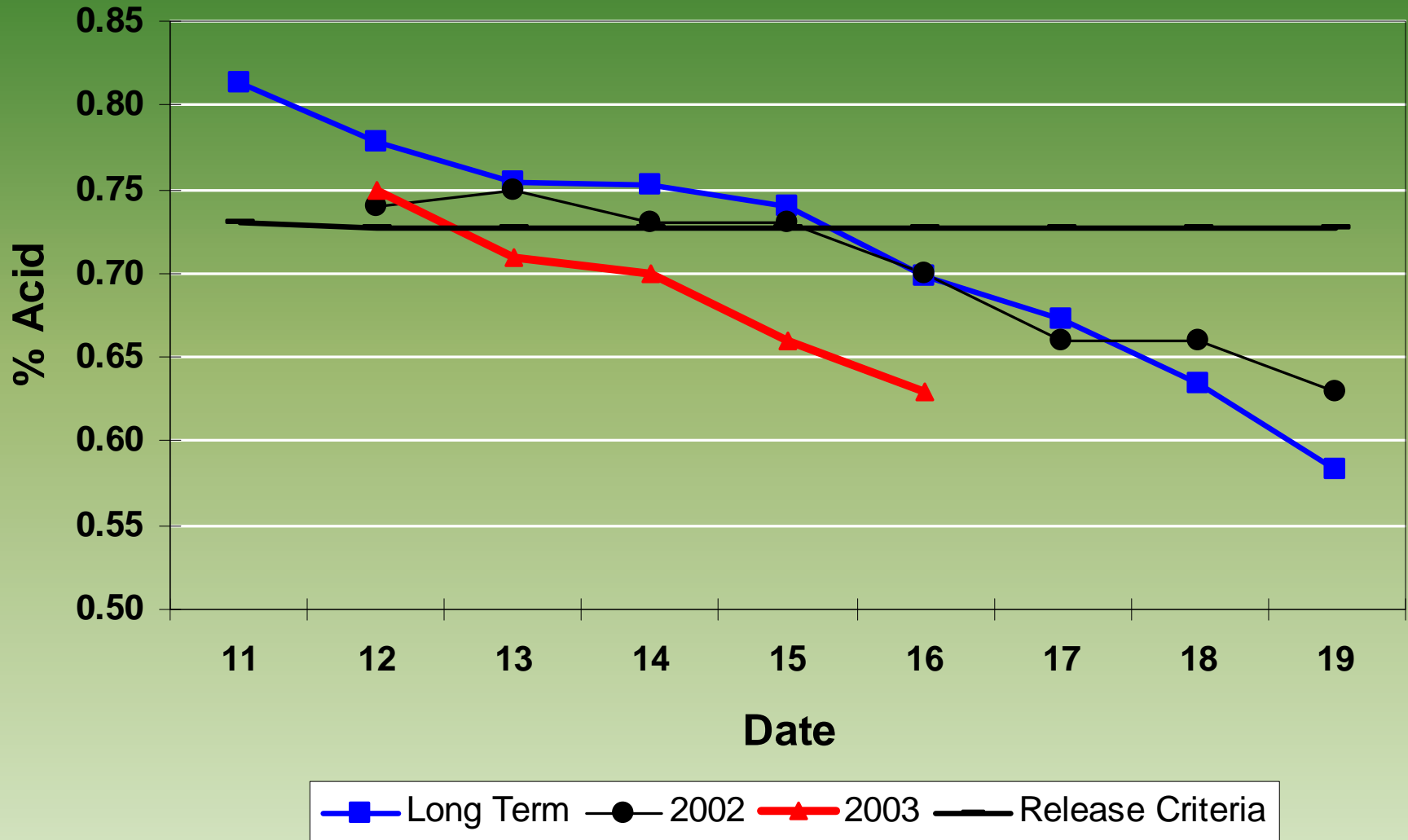


—■— Long Term —●— 2002 —▲— 2003 — Release Criteria

# % TSS: long term vs. 2002, 2003



# % Acid: long term vs. 2002, 2003



# Mineral Analysis

	FRUITLETS (All elements mg/100g fresh weight)							FRUIT (All elements mg/100g fresh weight)						
	Fruitlet mineral analysis results ( $\pm 62$ Dafb)							Fruit mineral analysis results ( $\pm 2$ Weeks before harvest)						
	N	P	K	Ca	Mg	FRUITLET	MOISTURE	N	P	K	Ca	Mg	FRUIT	MOISTURE
Year						MASS(g)	(%)						MASS(g)	(%)
2002	90.0	15.3	165.0	13.6	11.2	22.7	84.6	37.9	8.1	110.2	5.3	5.7	146.9	82.2
2001	46.6	12.9	148.6	10.9	10.2	26.2	84.2	35.8	9.0	112.6	5.5	5.8	140.4	83.1
2000	113.6	12.7	122.5	12.0	8.5	31.4	83.9	40.8	7.1	79.7	5.7	4.2	114.7	83.8
1999	77.4	11.9	147.4	10.5	9.3	21.9	85.1	25.6	9.2	97.9	6.7	5.0	156.7	83.5
1998	56.7	10.7	137.2	13.6	9.7	24.9	85.3	22.2	9.3	97.9	7.7	6.2	138.7	82.6

# Greasiness

Greasiness versus Harvest Week  
Season 1999/2000

