Post Harvest Evaluation of Off- Season California Blueberries

Mark Gaskell, Farm Advisor
UCCE – Santa Maria, CA

Beth Mitcham, Bill Biasi,
Ben Faber, and Ramiro Lobo

UC CE

University of California

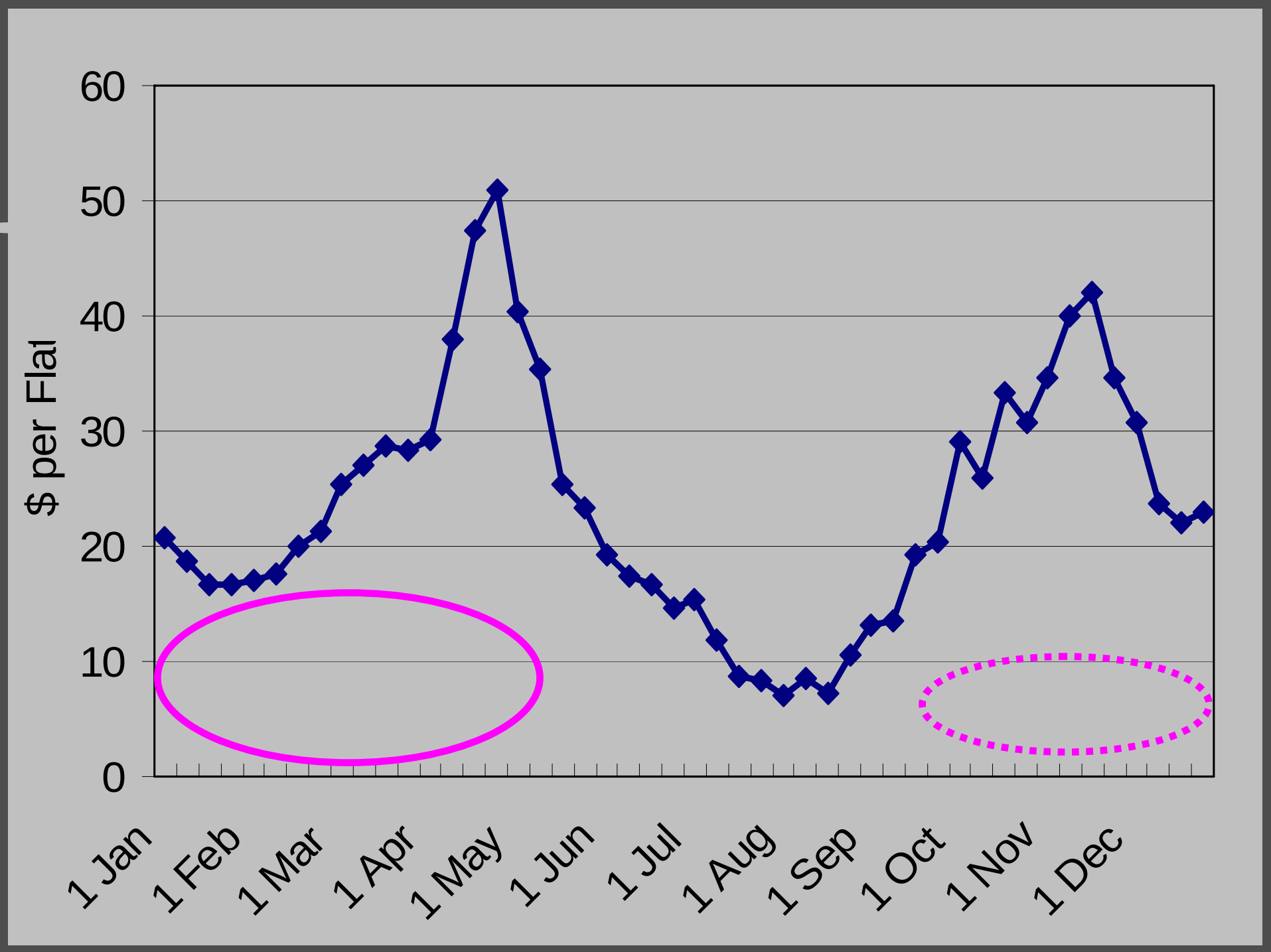
Cooperative Extension

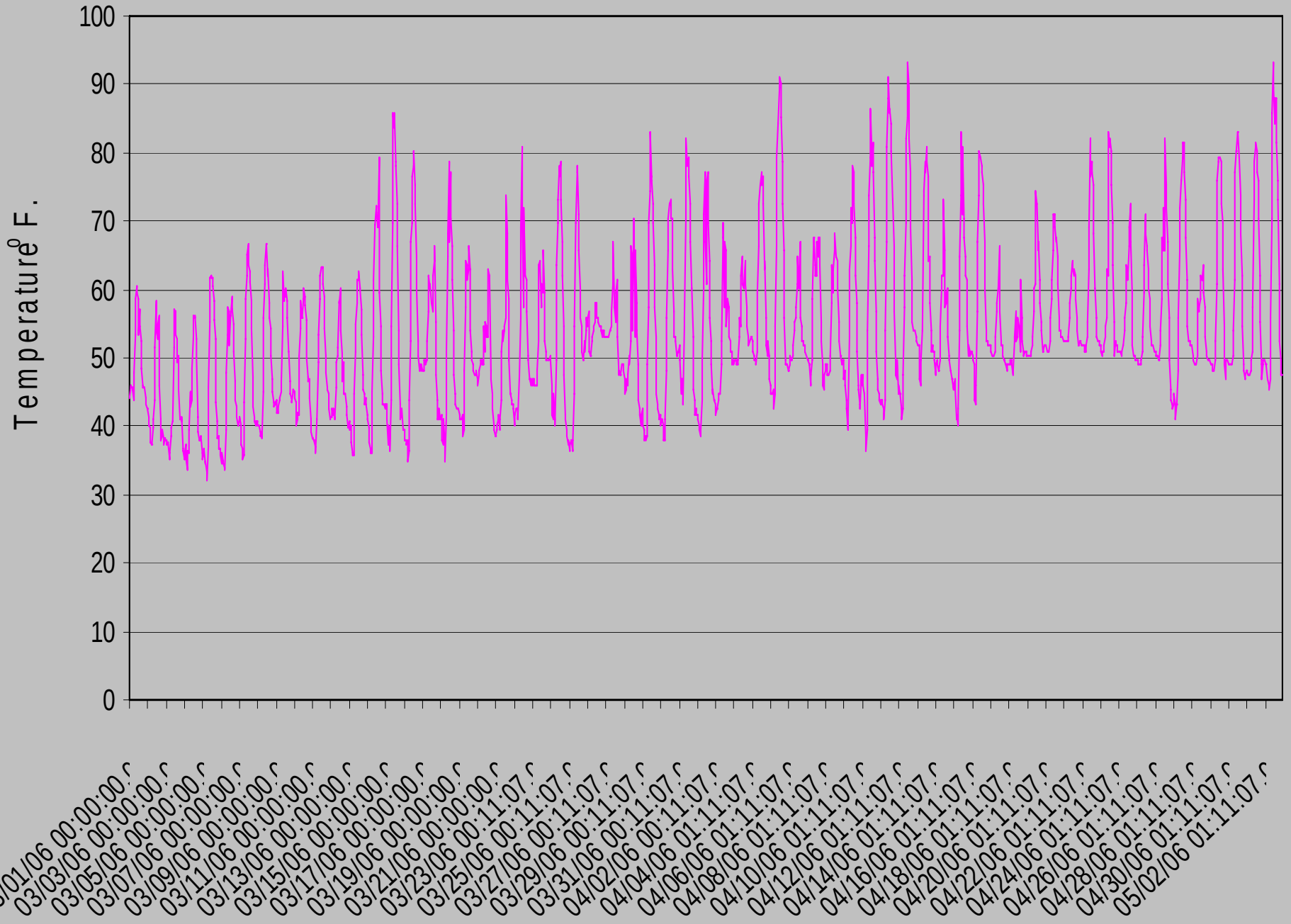
Research Overview 1998 - 2006

- *Identification of most promising varieties*
- *Harvest windows by production area*
- *Cultural practices for optimum production*
- *Post harvest quality characteristics.*

Research Overview 1998 - 2006

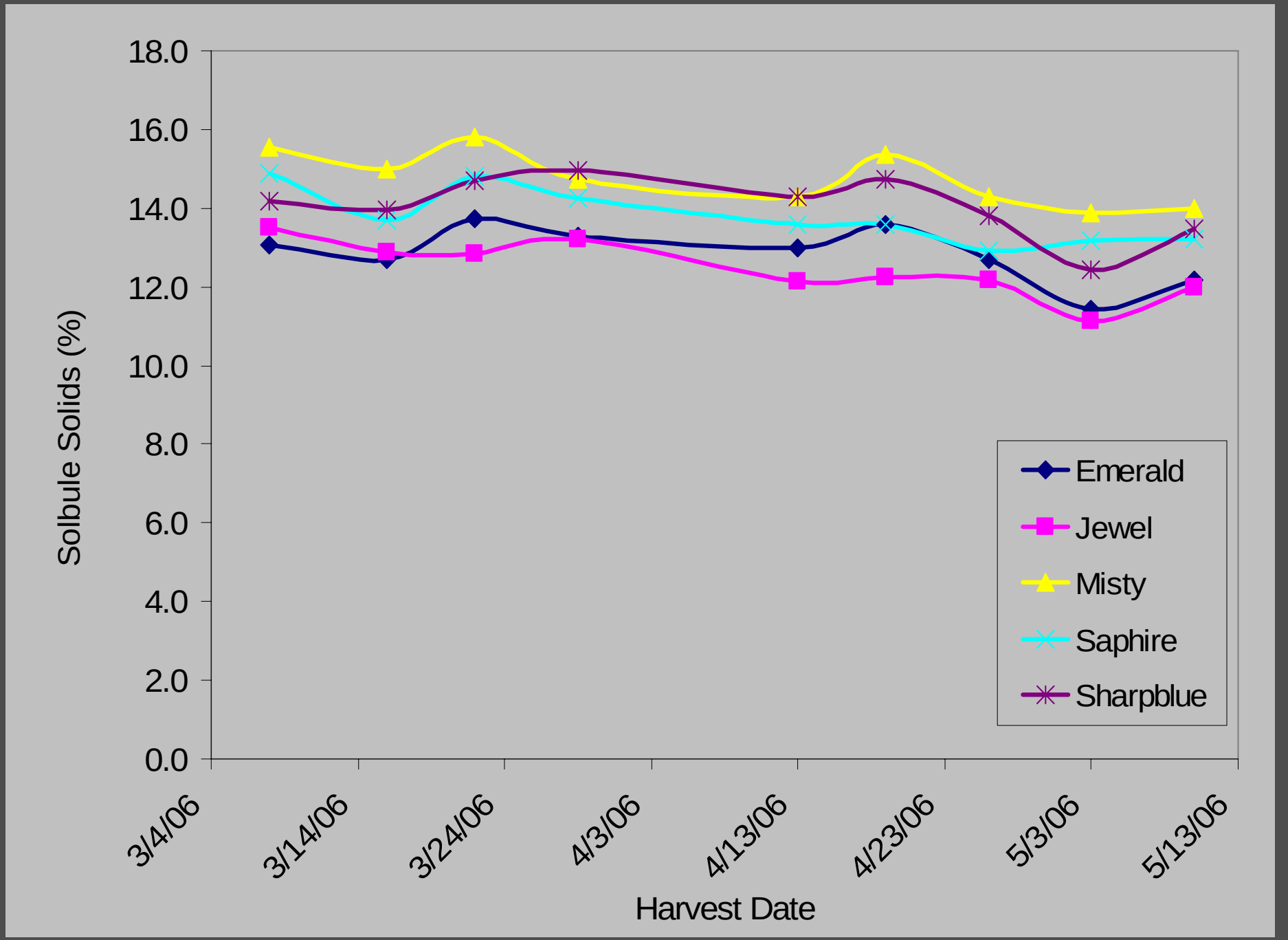
- *Identification of most promising varieties*
- *Harvest windows by production area*
- *Cultural practices for optimum production*
- *Post harvest quality characteristics.*

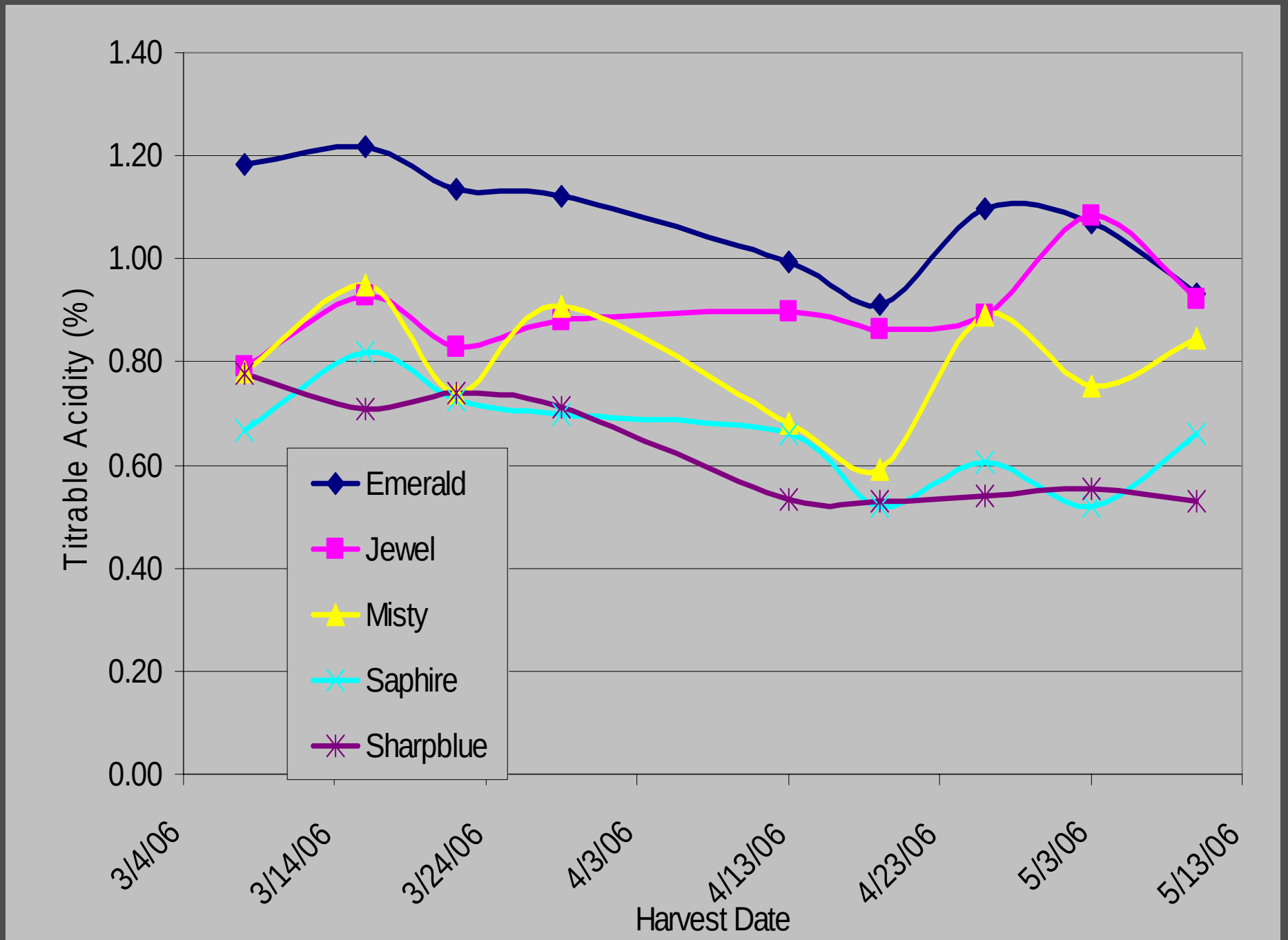

60
50
40
30
20
10
0
$ per Flat
1 Jan
1 Feb
1 Mar
1 Apr
1 May
1 Jun
1 Jul
1 Aug
1 Sep
1 Oct
1 Nov
1 Dec

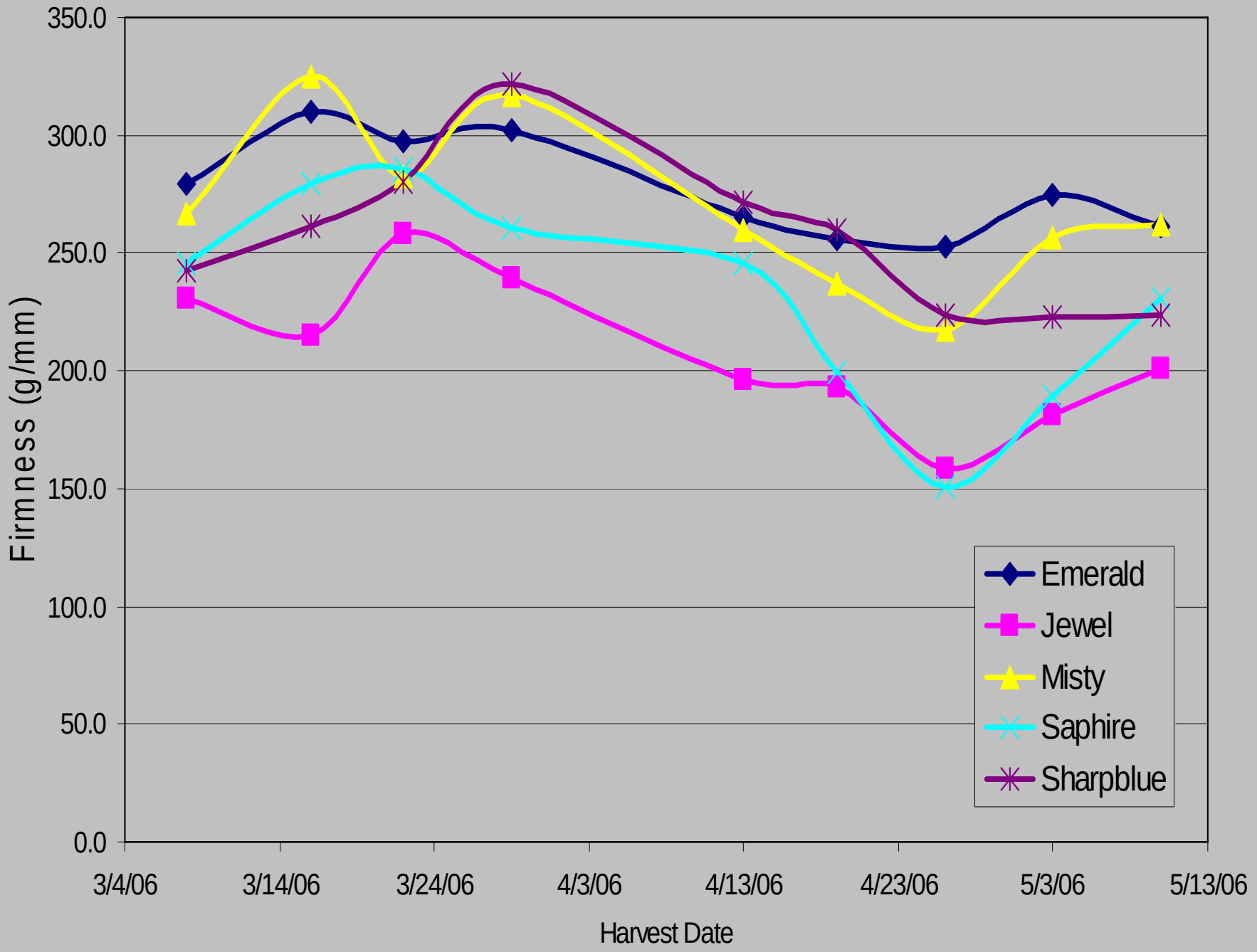

Temperature 0 F.
100
90
80
70
60
50
40
30
20
10
0
03/01/06 00:00:00
03/03/06 00:00:00
03/05/06 00:00:00
03/07/06 00:00:00
03/09/06 00:00:00
03/11/06 00:00:00
03/13/06 00:00:00
03/15/06 00:00:00
03/17/06 00:00:00
03/19/06 00:00:00
03/21/06 00:00:00
03/23/06 00:00:00
03/25/06 00:11:07
03/27/06 00:11:07
03/29/06 00:11:07
03/31/06 00:11:07
04/02/06 00:11:07
04/04/06 00:11:07
04/06/06 01:11:07
04/08/06 01:11:07
04/10/06 01:11:07
04/12/06 01:11:07
04/14/06 01:11:07
04/16/06 01:11:07
04/18/06 01:11:07
04/20/06 01:11:07
04/22/06 01:11:07
04/24/06 01:11:07
04/26/06 01:11:07
04/28/06 01:11:07
04/30/06 01:11:07
05/02/06 01:11:07

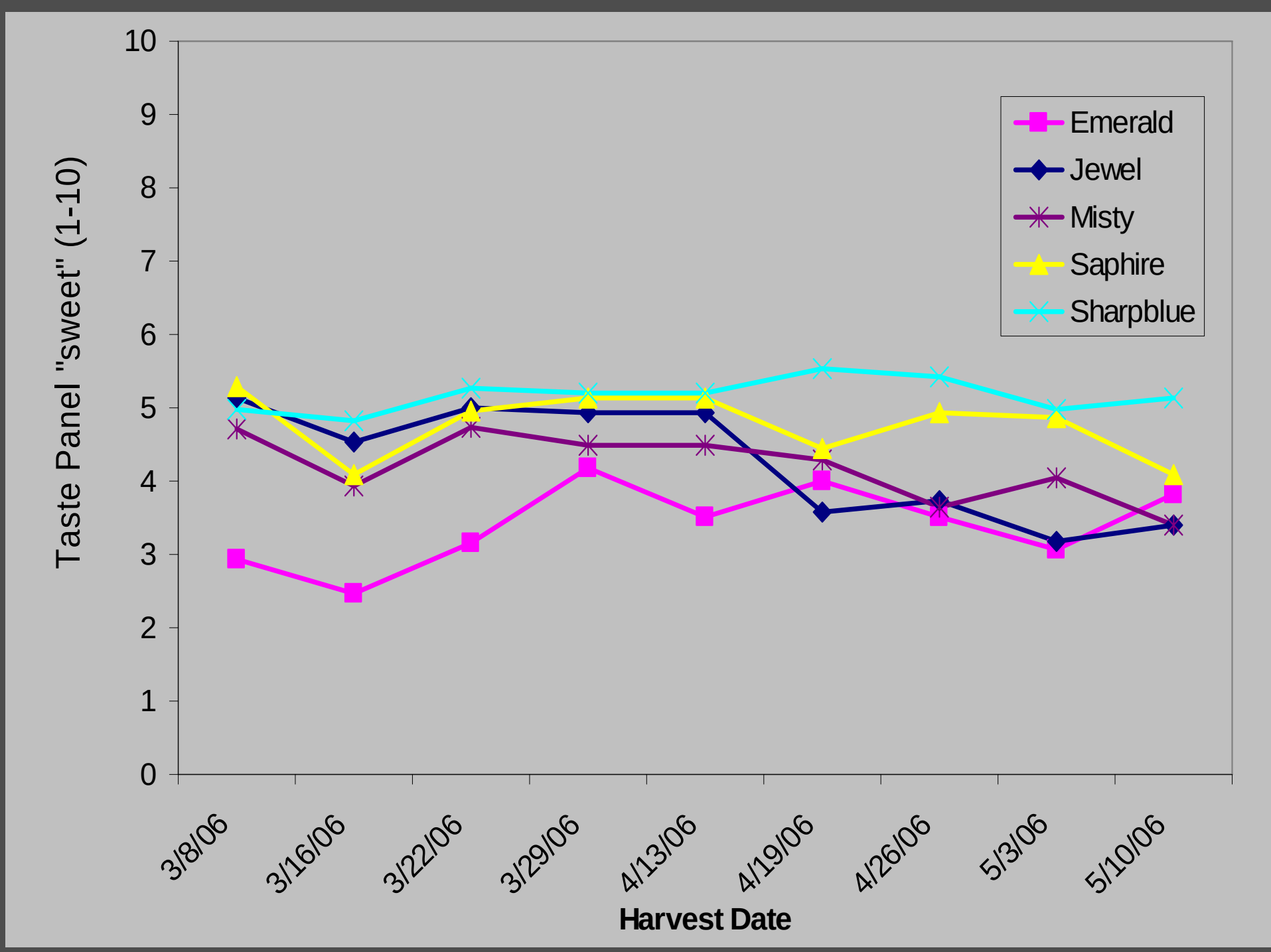
Post harvest quality characteristics of off season blueberries – initial trends

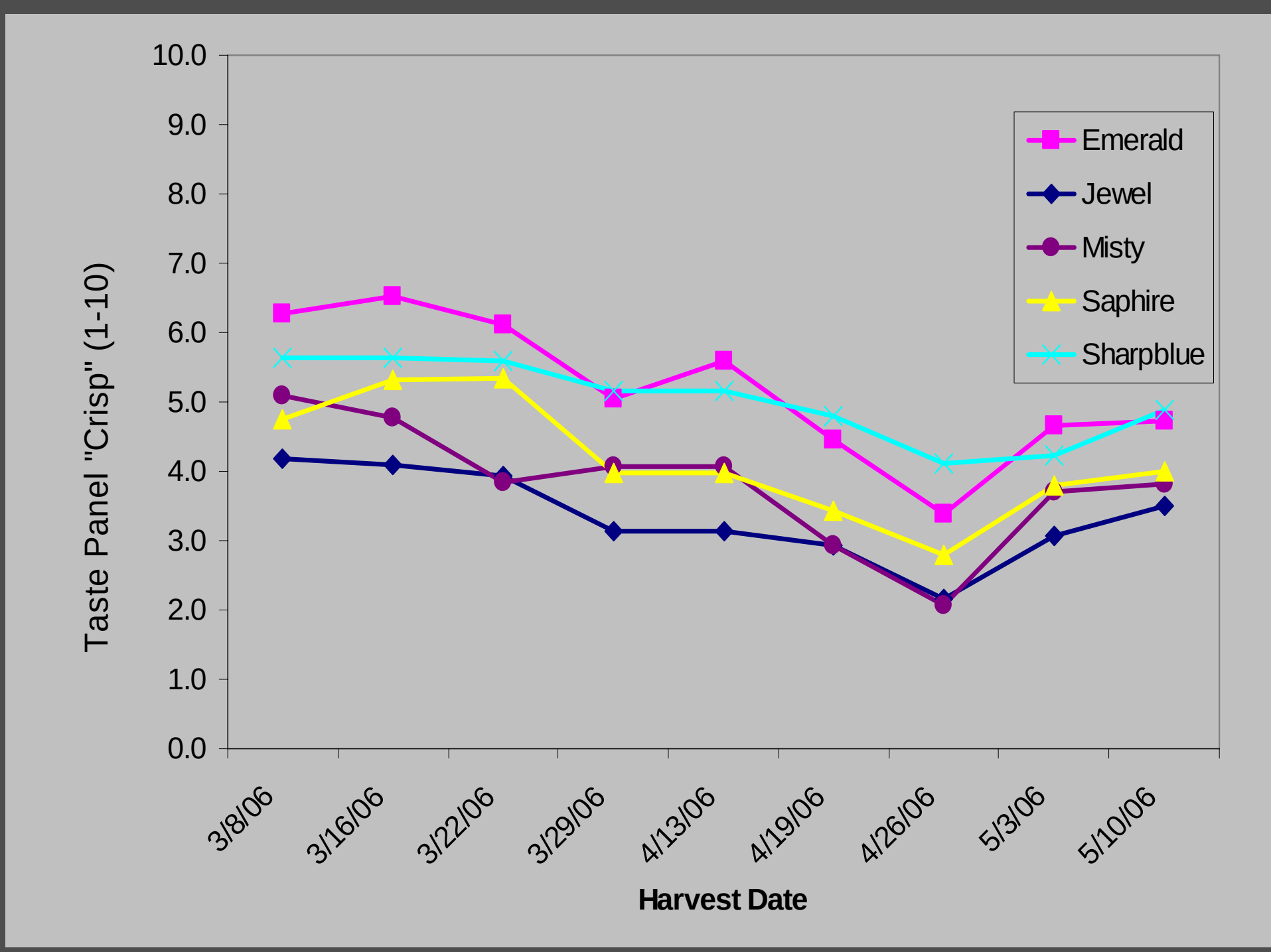
- *Flavor attributes*
  - *Soluble solids / titratable acidity*
  - *Taste panel evaluations*
- *Condition*
  - *Firmness, leakage, shrivel, crispness, Harvest windows by production area*
- *Weekly March – April 2006*

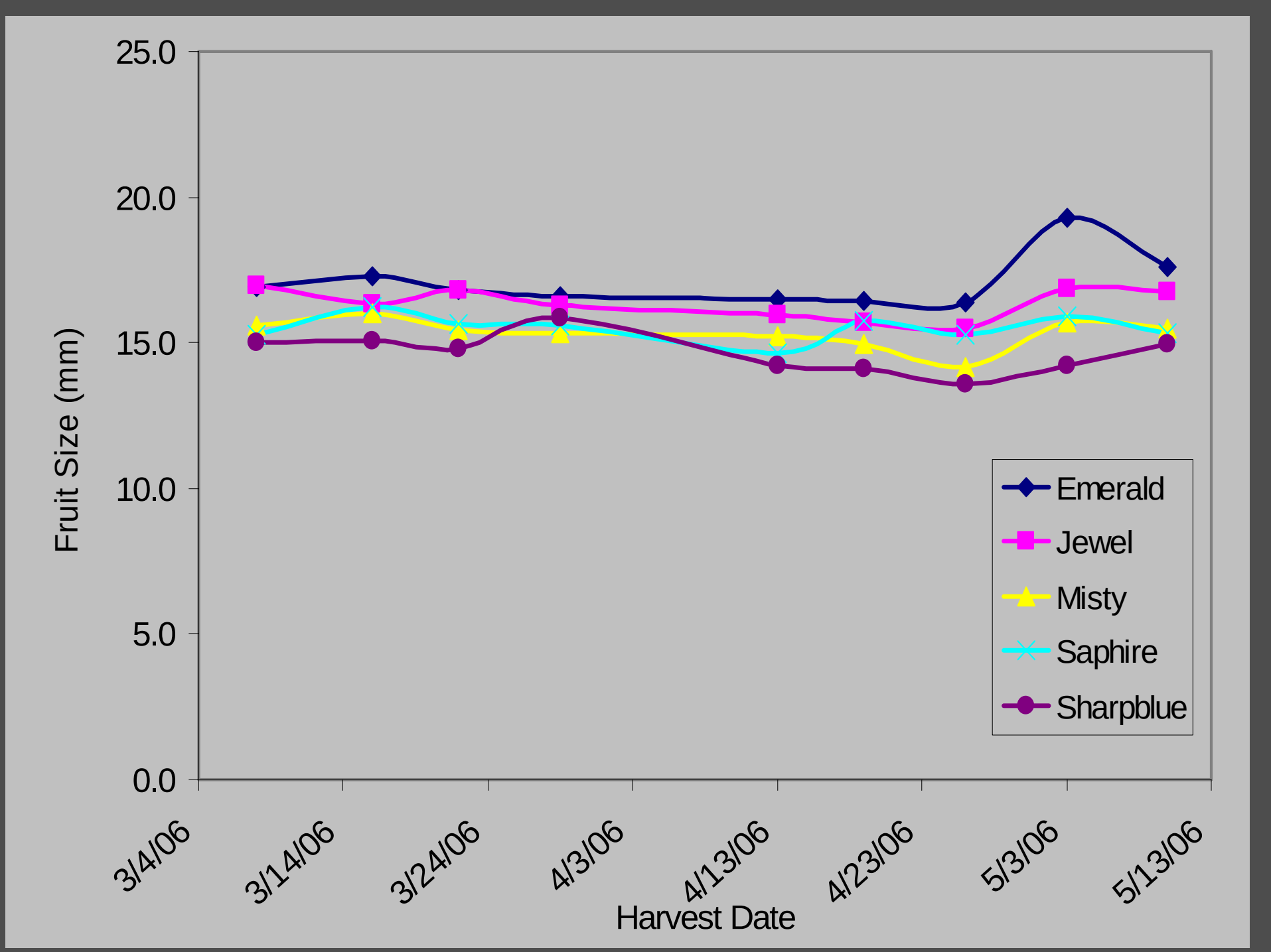

18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
Solbule Solids (%)
3/4/06
3/14/06
3/24/06
4/3/06
4/13/06
4/23/06
5/3/06
5/13/06
Harvest Date
Emerald
Jewel
Misty
Saphire
Sharpblue


1.40
1.20
1.00
0.80
0.60
0.40
0.20
0.00
Titrable Acidity (%)
Emerald
Jewel
Misty
Saphire
Sharpblue
3/4/06
3/14/06
3/24/06
4/3/06
4/13/06
4/23/06
5/3/06
5/13/06
Harvest Date


350.0
300.0
250.0
200.0
150.0
100.0
50.0
0.0
Firmness (g/mm)
3/4/06
3/14/06
3/24/06
4/3/06
4/13/06
4/23/06
5/3/06
5/13/06
Harvest Date
Emerald
Jewel
Misty
Saphire
Sharpblue


Taste Panel "sweet" (1-10)
10
9
8
7
6
5
4
3
2
1
0
3/8/06
3/16/06
3/22/06
3/29/06
4/13/06
4/19/06
4/26/06
5/3/06
5/10/06
Harvest Date
Emerald
Jewel
Misty
Saphire
Sharpblue


10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
Taste Panel "Crisp" (1-10)
Emerald
Jewel
Misty
Saphire
Sharpblue
3/8/06
3/16/06
3/22/06
3/29/06
4/13/06
4/19/06
4/26/06
5/3/06
5/10/06
Harvest Date


25.0
20.0
15.0
10.0
5.0
0.0
Fruit Size (mm)
3/4/06
3/14/06
3/24/06
4/3/06
4/13/06
4/23/06
5/3/06
5/13/06
Harvest Date
Emerald
Jewel
Misty
Saphire
Sharpblue

Post harvest quality characteristics of off season blueberries - Initial observations -

- *Jewel, Emerald lowest in soluble solids and highest in TA*

Misty and Sharpblue highest soluble solids

- *Sharpblue, Misty, Saphire highest "sweet"*
- *Jewel and Saphire relatively soft*
- *Jewel lowest "crisp"*
  no problems overall with leakage, shrivel, stems, etc
- *Emerald, Jewel consistently largest*

Post Harvest Evaluation of Off- Season California Blueberries

Mark Gaskell, Farm Advisor
UCCE – Santa Maria, CA

Beth Mitcham, Bill Biasi,
Ben Faber, and Ramiro Lobo

UC CE

University of California

Cooperative Extension