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2007

Research Update Meeting 2007 - Pathological Highlights 2007

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Pathological Highlights - 2007

Frank L. Caruso

UMass Cranberry Station

There’s a new kid in town…

Indar 75WSP
Fenbuconazole
Dow Agrosciences

Fruit rot management

- 2-4 oz. per acre
- Begin applications prior to bloom at the onset of disease
- Continue on a 7-14 day spray schedule, depending on local conditions
- Do not make more than four applications or apply more than 16 oz. per acre per year
- 30 day PHI

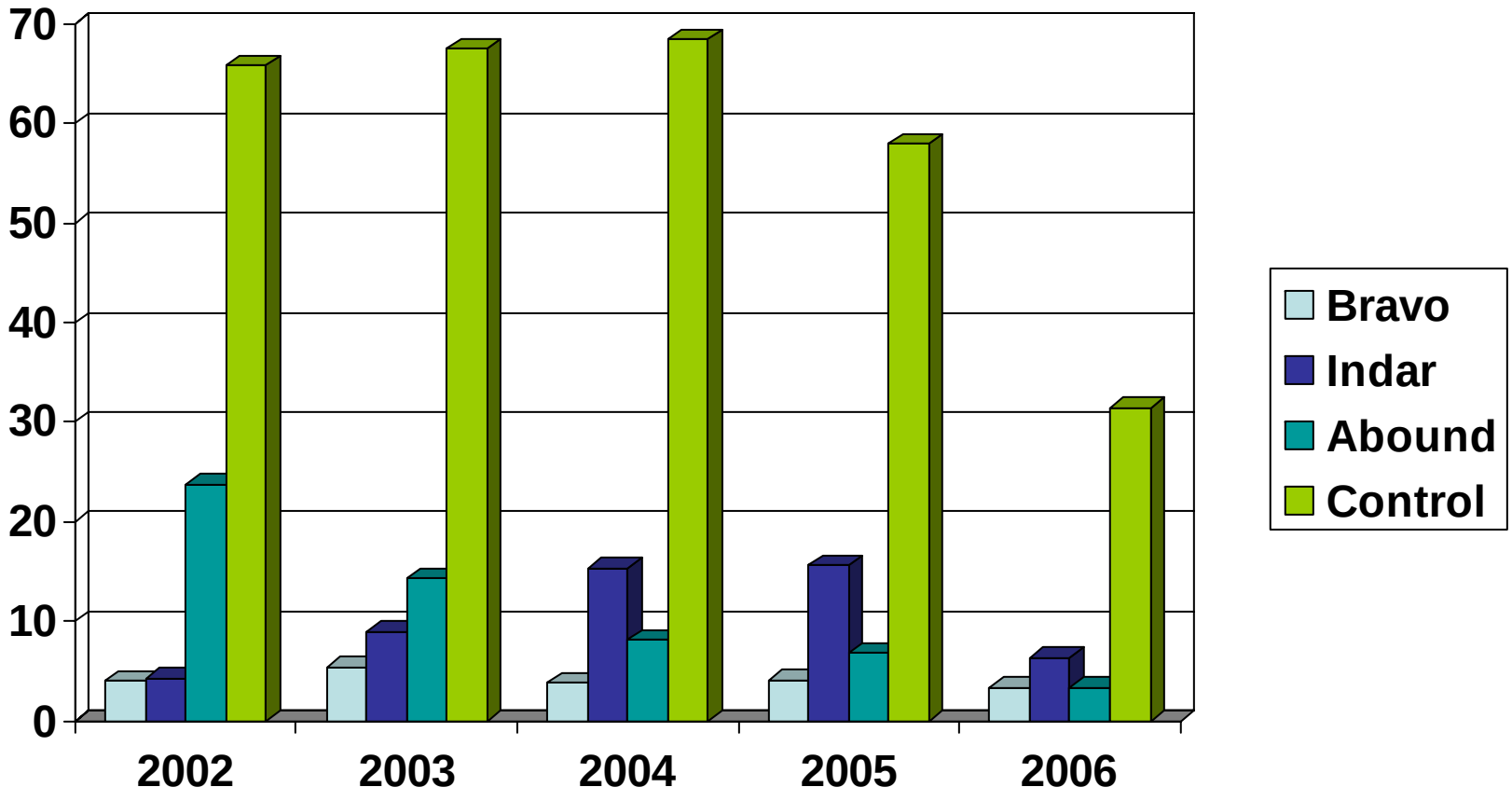
Fairy ring management

- Measure ring diameter and add 10 feet to the diameter
- Begin applications at budbreak and repeat once, if necessary, 14 days later
- Apply (4 oz./acre) in 30-100 gallons of water to the affected area
- Irrigation for 1-2 hr following application is advisable to ensure penetration to the base of the plant

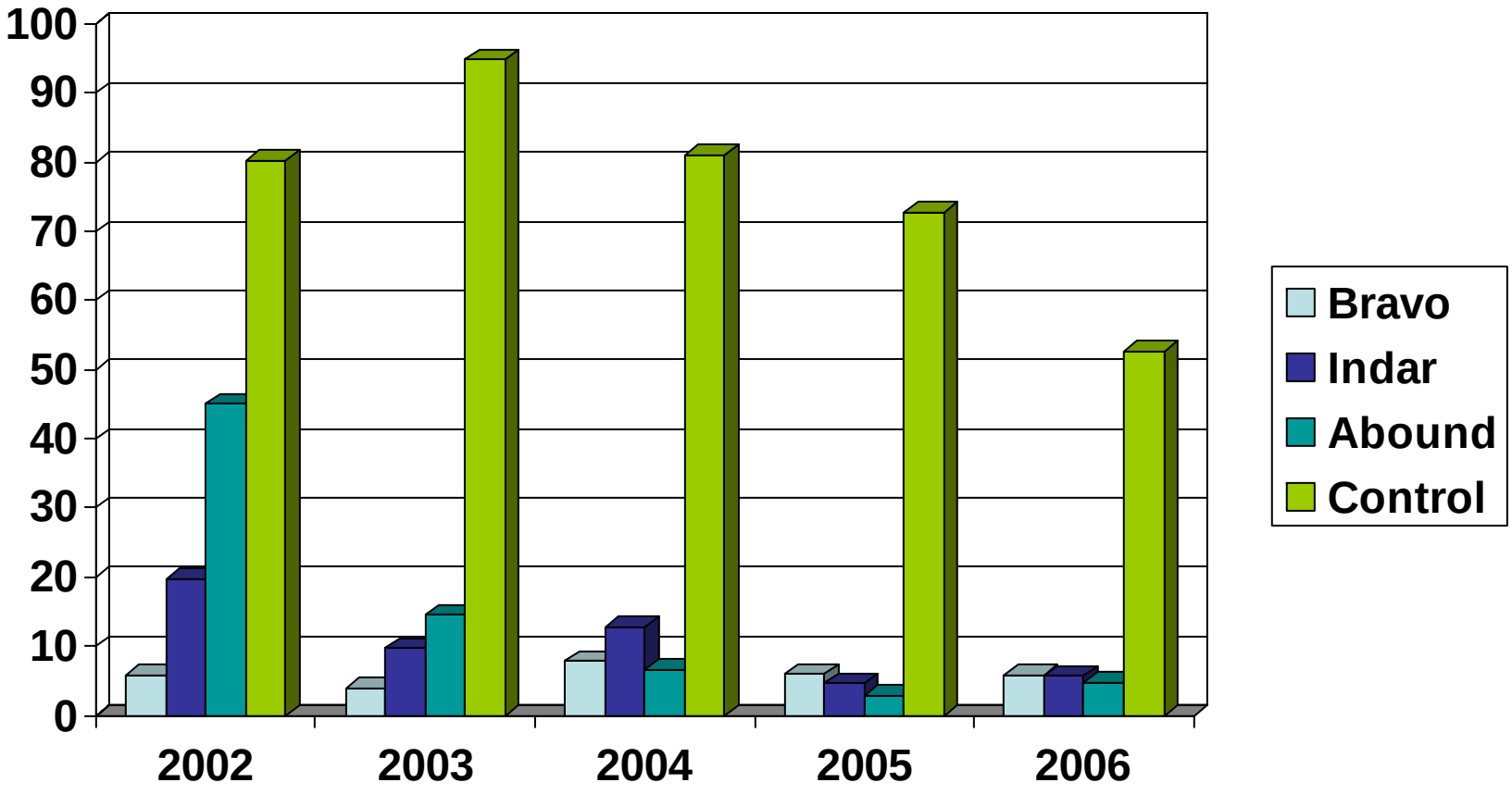
Resistance management

- Indar 75WSP belongs to the demethylation inhibitor (DMI), sterol-inhibiting class of fungicides and is classified as a “Group-3-Fungicide” by EPA. Since certain fungi can develop resistance to this class of products, the use of Indar 75WSP should be part of a resistance management strategy which includes alternation with fungicides of different modes of action.

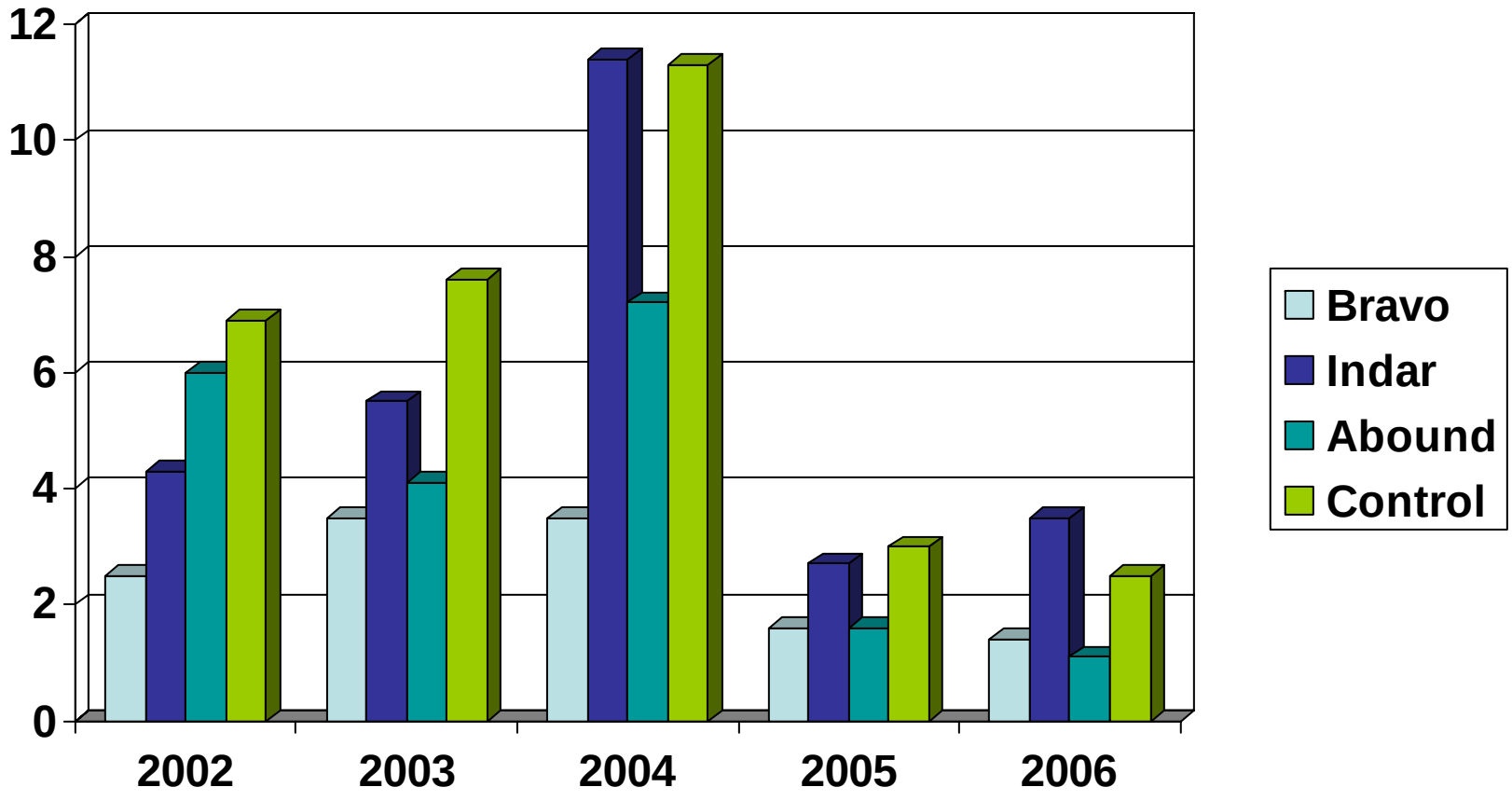
Field rot – Crowley



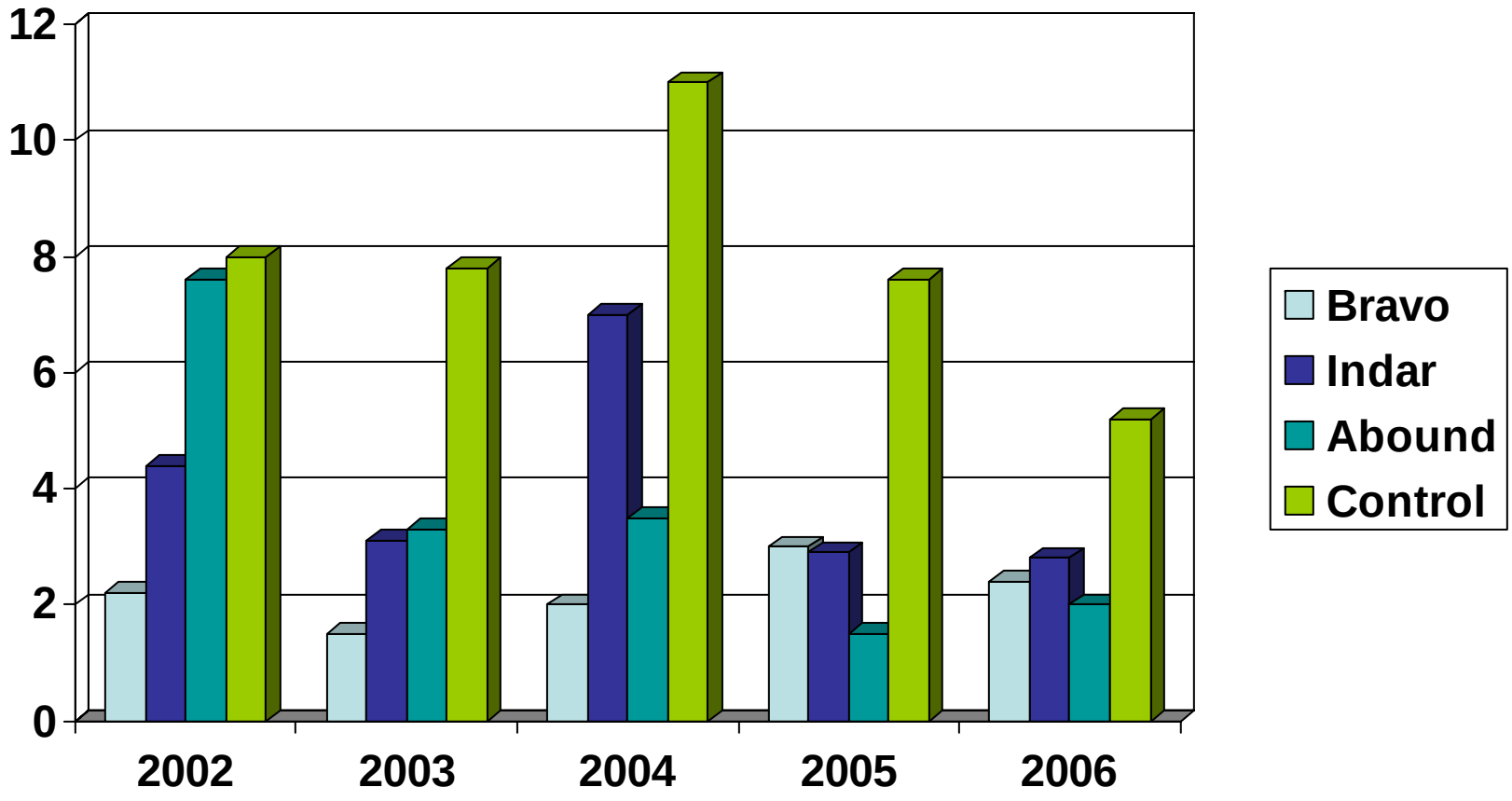
Field rot – Early Black



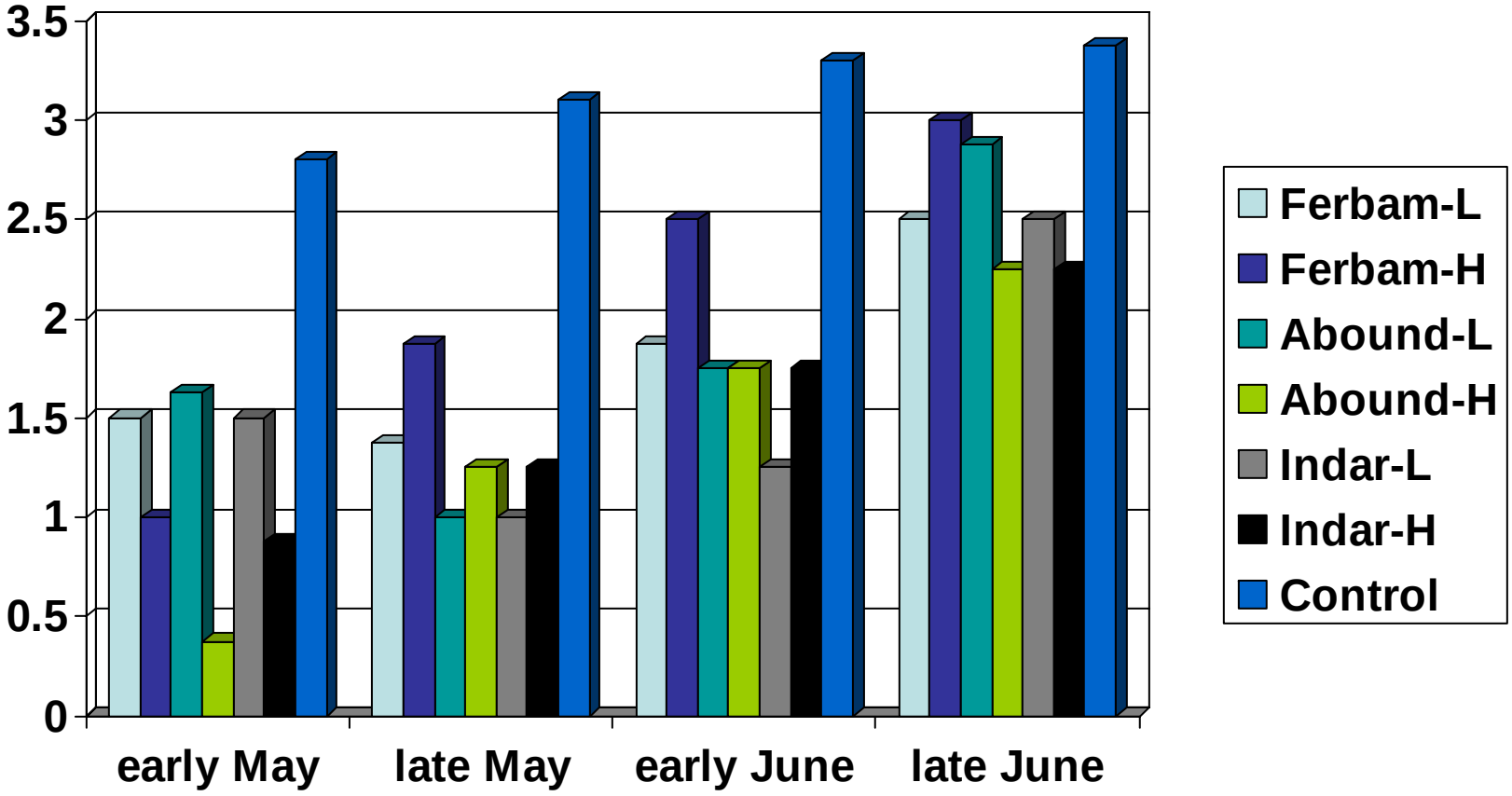
Storage rot – Crowley



Storage rot – Early Black



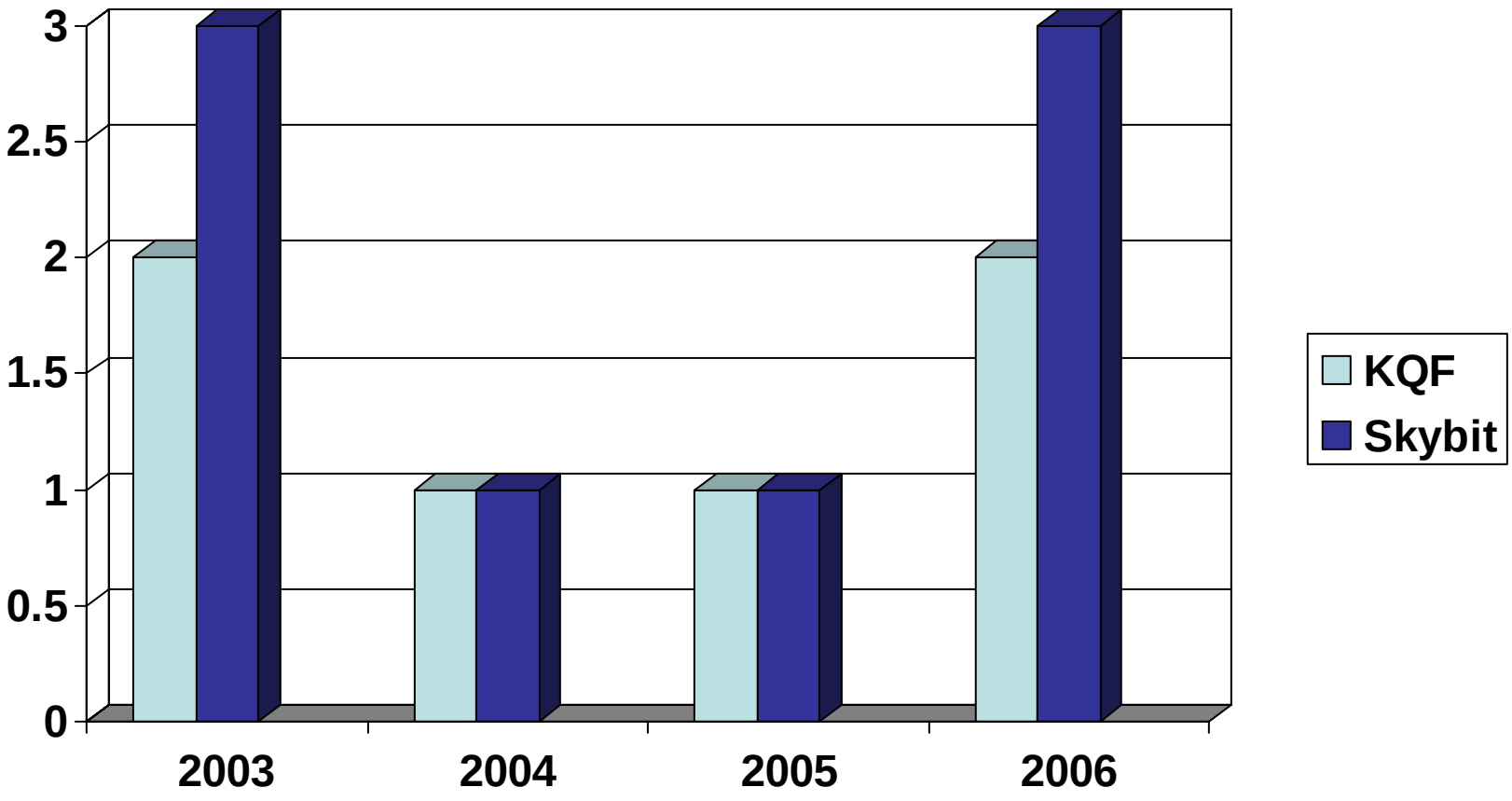
Fairy ring trial – Howes – 2002



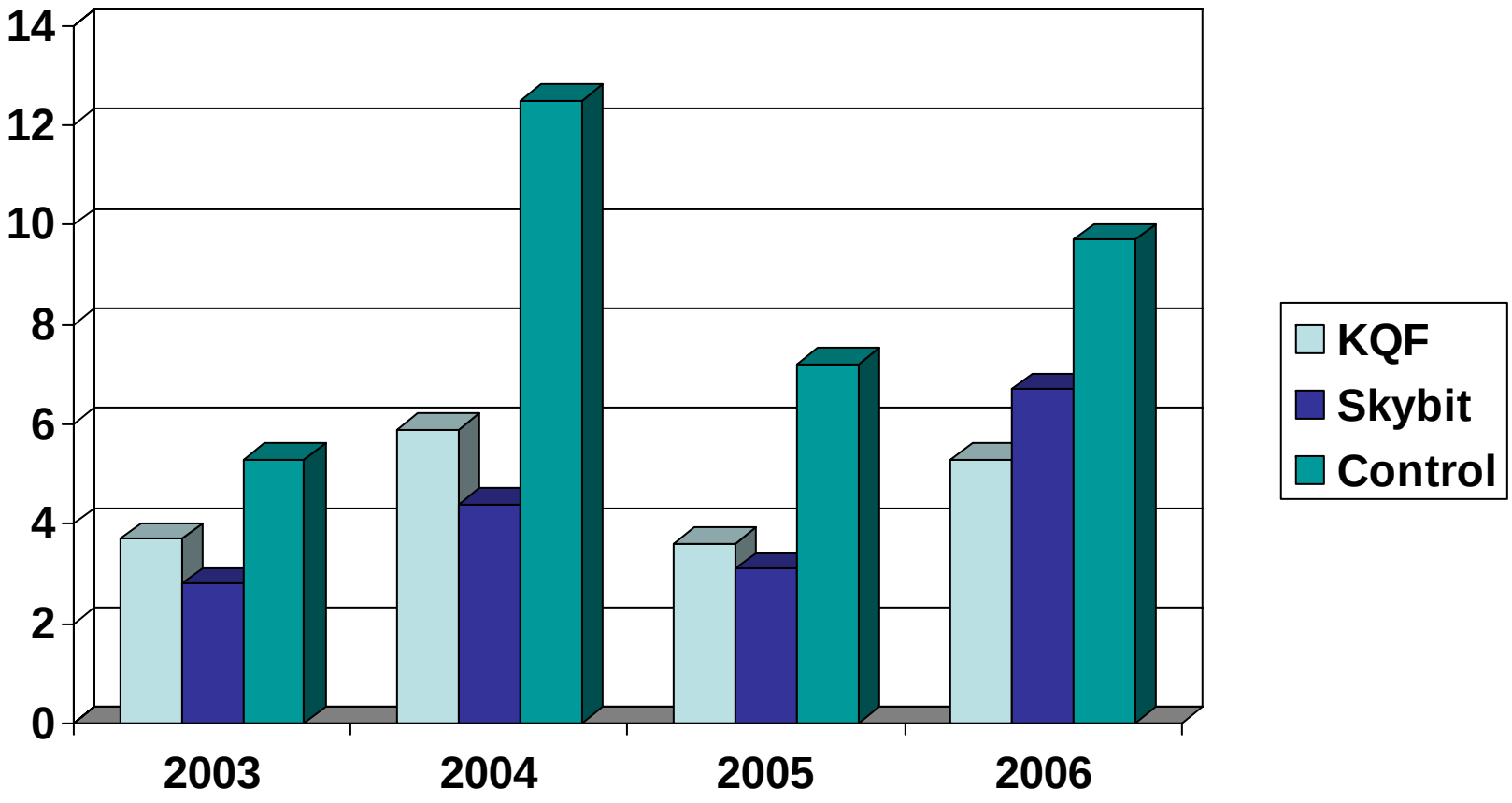
Points assigned for the Keeping Quality Forecast

- Sunshine during the previous crop year – 4
- Sunshine in February – 1
- Sunshine in March – 2
- Temperature in March – 2
- Precipitation in March – 1 10 pts for Prelim.
- Temperature in April – 2
- Precipitation in April – 1
- Temperature in May – 2
- Precipitation in May – 1 16 pts for Final

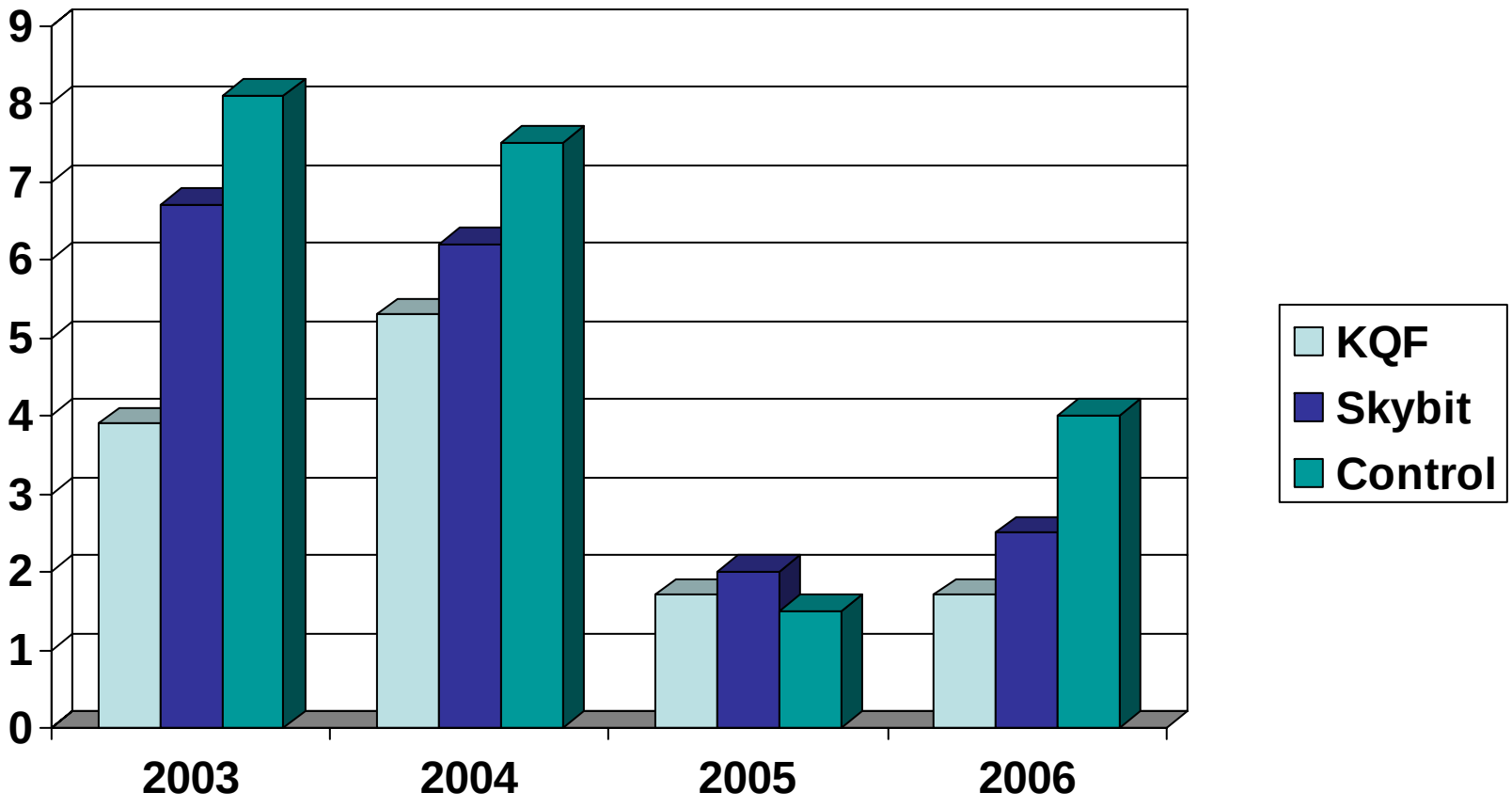
Fungicide applications recommended by KQF and Skybit model



Comparison of KQF and Skybit model – field rot



Comparison of KQF and Skybit model – storage rot



Accuracy of the KQF

Year	Prelim	Final	Actual
1997	G	G/VG	VG/E >
1998	VP	VP	F/G >
1999	F/G	F	F
2000	P/F	VP	F/G >
2001	VP	VP	F/G >
2002	VP	VP	F/G >
2003	F/G	G/VG	VP/P <
2004	G	VG/E	G <
2005	F/G	VG/E	G <
2006	P	F	F

Funky Flower

What do we know about FF?

- 20 beds – 19 Early Black, 1 Howes
- 17 ‘A’ type, 3 ‘B’ type
- Also occurs in New Jersey in EB
- Patches enlarge but less than 1 ft/yr
- Few fruit produced, fruit are small and malformed
- Vigorous runner production

What causes FF?

- Propagated cuttings retain the condition
- Transmissable through the seed
- Electron microscopy found possible virus particles – tobamovirus, badnavirus, rhabdovirus or a new category of viruses
- Experiments in progress or will be conducted – grafting, pollen transmission, dodder transmission
- Has been very difficult to nail down a causal agent

Leaf spot caused by fruit rot fungi
Typical in newly planted beds

Fruiting bodies in leaf spot

Leaf spotting leading to defoliation

Stem lesion with fruiting bodies

Early Rot – Phyllosticta vaccinii