



Pink Lady® Cripps Pink cov
Or Pink Lady® Rosy Glow cov

Ctifl St Rémy de Provence
CEFEL - La Morinière

Ctifl



Pink lady® - 10/10/2007

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Cripps Pink or Rosy Glow - Ctifl St Rémy



2004/2005

- *Orchard*: 3rd leaf - Pajam[®]2 (RG : 22,5 T/ha - CP : 25 T/ha)
- *Harvest*: 10/25 and 11/08
- *Storage*: **0,5°C** for 2,5 months in cold storage = stressful conditions
= Internal Browning: RG 9-35% (+/- light) & CP 0-1%

2005/2006

- *Orchard*: 4th leaf - Pajam[®]2
- *Harvest*: 10/25 (RG commercial harvest) and 11/07 (CP commercial harvest)
- *Storage*:
 - **2°C** after 3,5 months in cold storage = limited stress
= Internal Browning: 1st harvest RG 6,3% & 2nd harvest CP 0%
 - **2°C** after 6 months in CA (2,5 % O₂ / 1,5-2 % CO₂) = limited stress
= Internal Browning: 1st harvest RG. 34% & 2nd harvest CP 0%

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Cripps Pink or Rosy Glow - La Morinière



2004/2005

- *Orchard*: 3rd leaf - Pajam[®]2 - 20 T/ha
- *Harvest*: 10/21 & 10/29
- *Storage*: 2°C in CA (2,2%O₂ - 1,7% CO₂) until end of February + 1 month under cold storage + 7 days at room temp. = limited stress
= 25-35% internal browning / 5% scald for the 1st harvest
+ Cripps P. (25 T/ha) : no I.B.

2005/2006

- *Orchard*: 4th leaf - Pajam[®]2 - 32 t/ha
- *Harvest*: 11/02 & 11/17
- *Storage*: 2°C in CA (3,2%O₂ - 1,5% CO₂) until February + 3 weeks under cold storage + 7 days at room temp. = limited stress
= Slight internal browning (5-10%) + Cripps P. : no I.B.

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Internal Browning according to the clone Ctifl St Rémy 06-07



- *Orchard*: 3rd leaf - Pajam®2 (RG : 3,9 T/ha - CP : 5 T/ha)
- *Harvest*: 10/25 and 11/08
- *Storage*: 2°C in cold storage or in CA (2,5 % O₂ et 1,5-2 % CO₂)
= limited stress

Maturity at harvest		Red color F	Starch	Firmness kg/cm ²	Malic Ac. g/L	Sugar %Brix
CP	----- R1 -----	3,3	7,8	7,2	7,7	14,1
	R2	4,2	8,1	7,1	7,0	14,2
RG	----- R1 -----	3,9	7,8	7,3	7,7	13,9
	R2	5,1	8,0	7,1	7,2	14,1

1st picking: 10/16 - 2nd picking 10/25

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Internal Browning according to the clone Ctifl St Rémy 06-07



1st observation

End of storage:

02/06

Observations
after 7 days at
18°C

	Internal Browning %	Peduncle Scald %	Firmness Kg/cm ²	Malic Ac. g/L	Sugar %Brix
CP R1	0.0	10.3	6.0	5.5	14.7
CP R2	0.0	19.1	5.4	5.3	14.4
RG R1	0.9	22.6	5.7	5.3	14.9
RG R2	0.0	24.7	5.6	5.1	13.8

2nd observation

End of CA : 04/30

End of storage : 05/03

Observations after 7 days at
18°C

	Internal Browning %	Light I.B. %	Firmness Kg/cm ²	Malic Ac. g/L	Sugar %Brix
CP R1	0.0	0.0	6.7	5.6	14.7
CP R2	0.0	0.0	6.5	5.6	14.4
RG R1	8.2	4.5	6.5	5.4	14.7
RG R2	8.0	4.0	6.3	5.1	14.1

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Internal Browning according to the clone

CEFEL 06-07



- *Orchard*: 5th leaf - Pajam[®] 1 - 38-40 T/ha (for RG & CP)
- *Harvest*: 2 blocks with different dates for the 1st harvest.
- *Storage*: cold storage until March 7th or CA (2 % O₂ et 1,8 % CO₂) until April 5th + 3 weeks at 0,5°C.

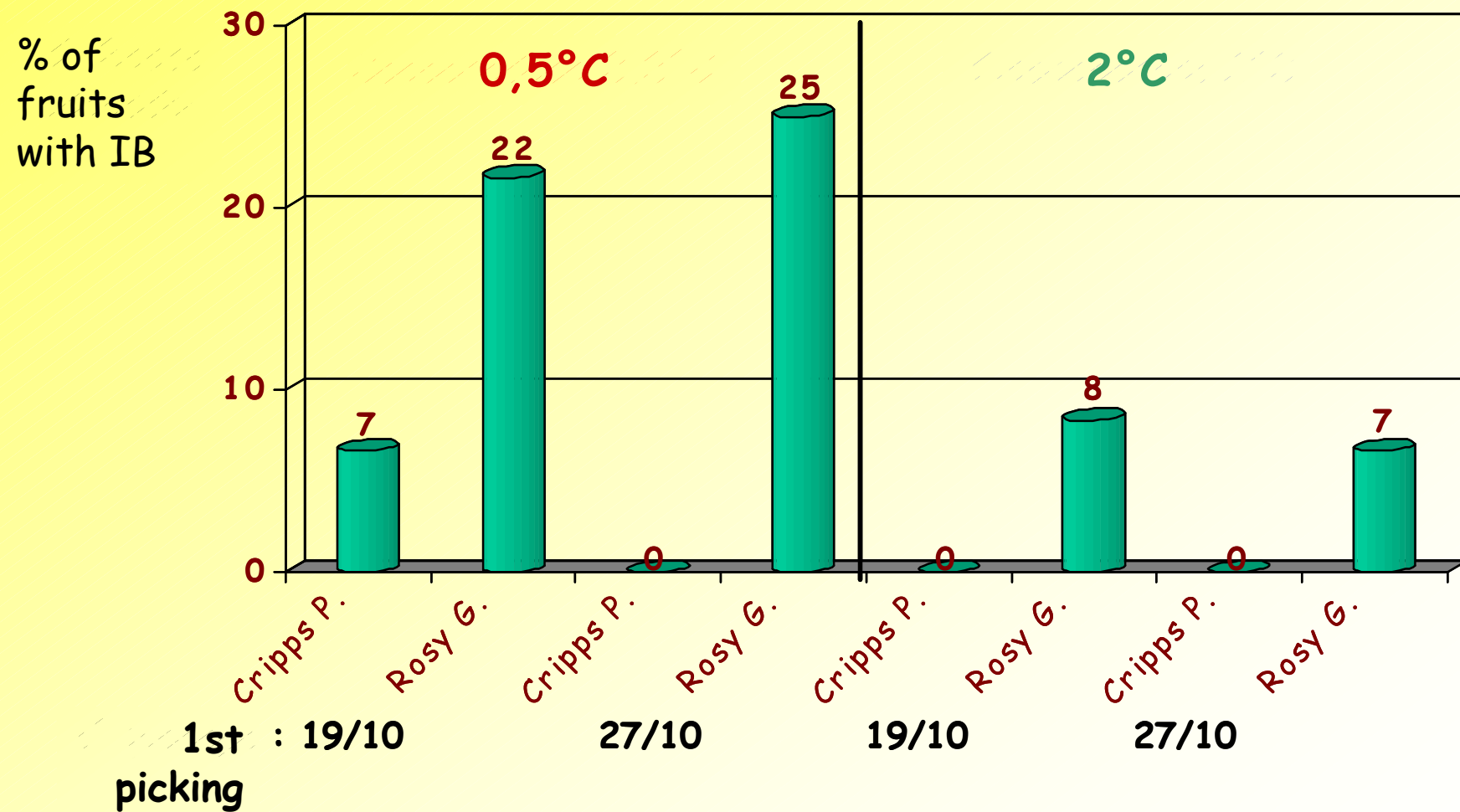
Clone	Harvest date	Starch index (Ctifl code)	Storage
Cripps Pink _{cov}	10/19	4.6	Cold storage at <u>0,5°C</u> Cold storage at <u>2°C</u> CA (+3 weeks) at <u>0.5°C</u> = +/- stress * Low Firmness and Brix
Rosy Glow _{cov}	(1 st picking)	4.8	
Cripps Pink _{cov}	10/27	6.3	
Rosy Glow _{cov}	(1 st picking)	6.1	
Cripps Pink _{cov}	11/02	5.5	
Rosy Glow _{cov}	(2 nd picking)	4.6*	
Cripps Pink _{cov}	11/07	6.6	
	(2 nd picking)		

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Internal Browning according to the clone CEFEL 06-07



Cold storage until March 7th



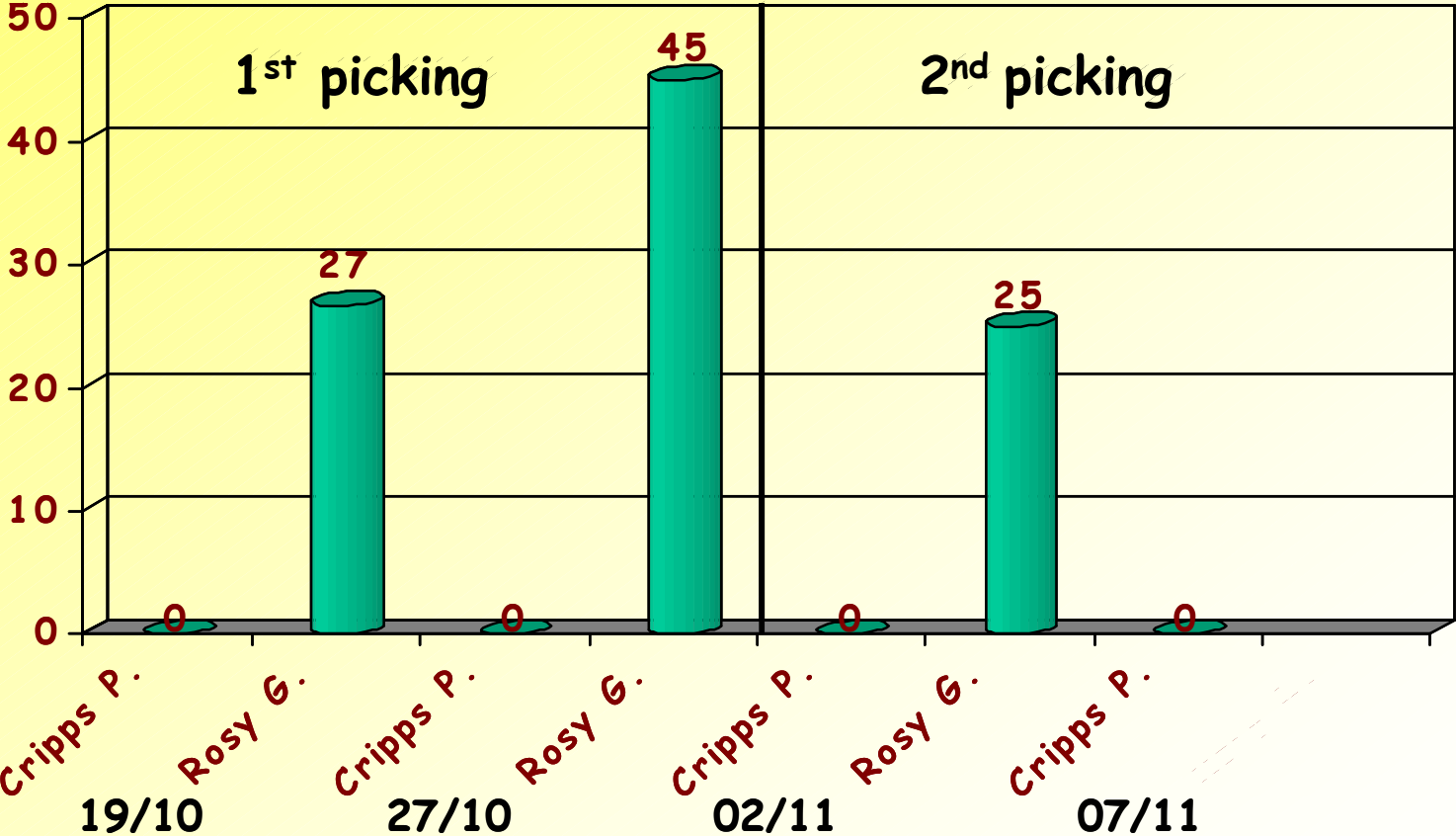
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Internal Browning according to the clone CEFEL 06-07



CA (0,5°C) until April 5th (end of the storage April 24th)

% of
fruits
with IB



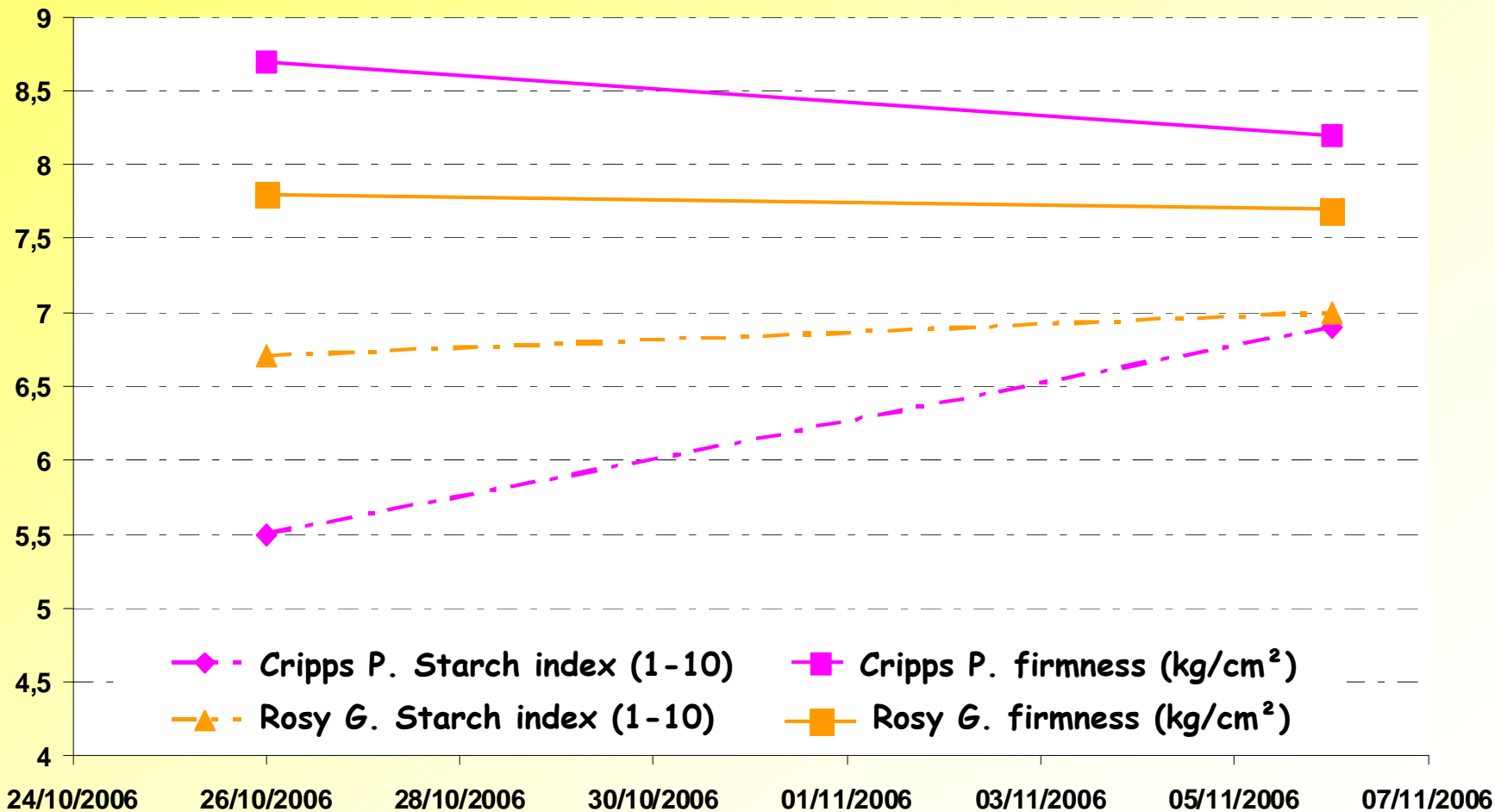
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Rosy Glow - Cripps Pink 06-07

La Morinière



- Orchard: 5th leaf on Pajam® - Cripps Pink 48 T/ha & Rosy Glow 40 T/ha



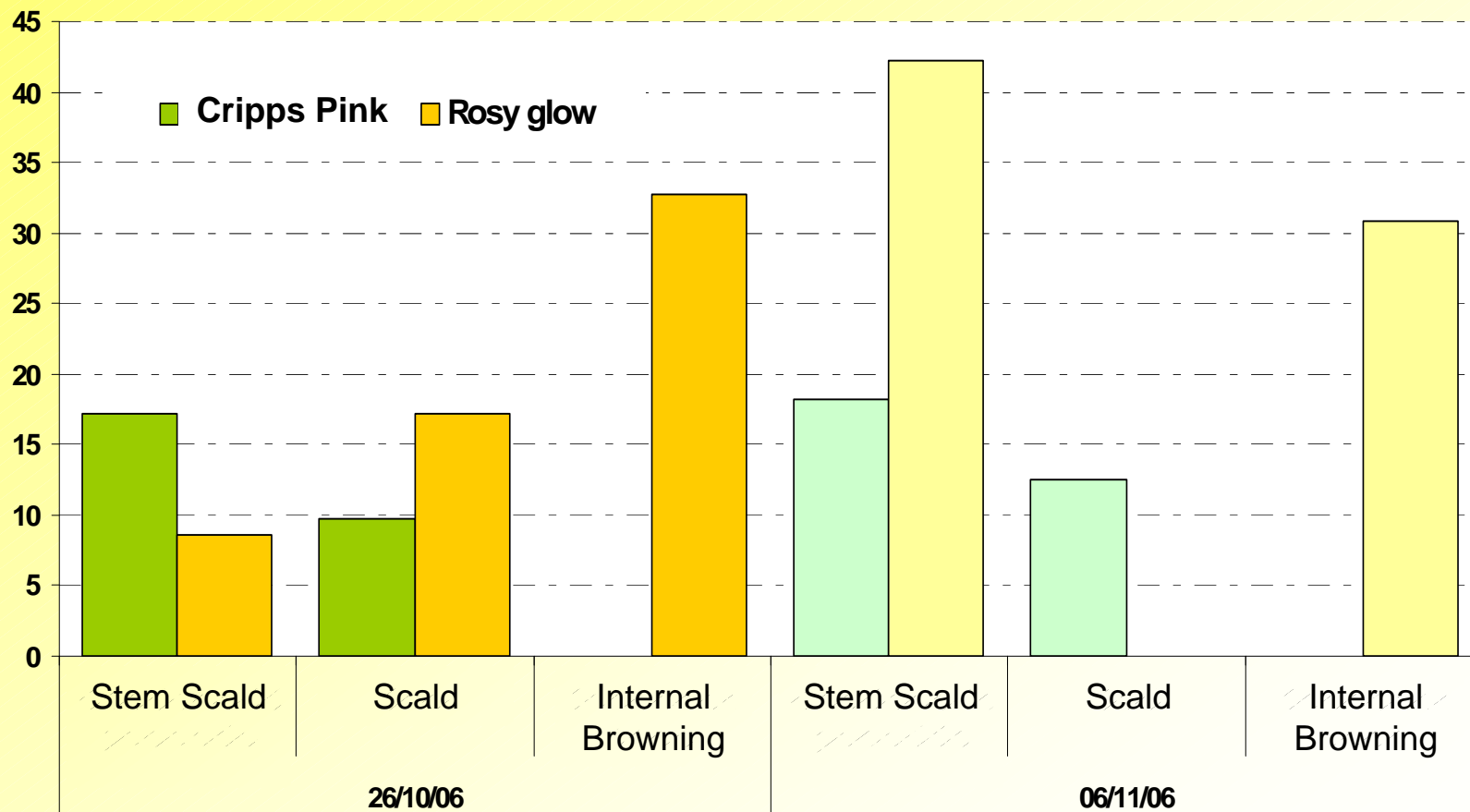
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Rosy Glow - Cripps Pink 06-07

La Morinière



- *Storage: CA at 1°C (3,2%O₂ - 1,5% CO₂) until 02/14 then cold storage for 29 days = stressful conditions*



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Which type of Internal Browning ?

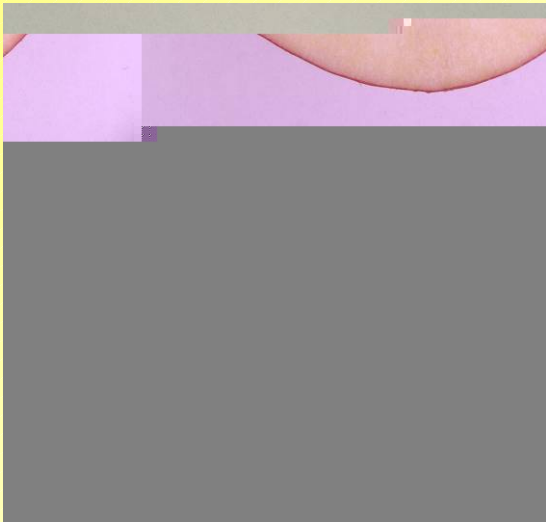
Diffuse,



*Observation in
May 2007 - Ctifl
St Rémy*

*[0,5°C - CA
(2,5% O₂ / 1,5-
2% CO₂)]*

Radial,



Or Cavity type ?



Observation in March 2005 Ctifl St Rémy [0,5°C - CA (2,5-3% O₂ / 2% CO₂)]

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Results on Rosy Glow on young orchards

✓ Factors influential on Rosy Glow's Internal Browning ?

- « Harvest date & Maturity at harvest » seem to be secondary.
- « Temperature & storage conditions » seem to have a great incidence.
- « Orchard age »: not enough element ?
- Others results ? Australia, Italy...

✓ Recommendation ?

- T°: 2°C (*South Tyrol: 4°C during filling, 15 days to reach 2,5°C then CA*)
- CA: % O₂ > % CO₂ (2-3% O₂ et 1,3% CO₂)