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### Abstract

This study was conducted at two orchards located at Mandali & Baladruz during the growing season 2012. The goal from the study was to explore the effect of pollination date (before and after sheath opening) and pollen grain source (Asfar, Ghanami Red, Rissasi and Aswad), on some physical and chemical properties of Ashrassi date cultivar during Tamer stage. The obtained results are summarized as following

1. Statistical analysis showed a significant effect in the of date of pollination, When first date of pollination is better than second date for all studied adjectives at both sites.
2. different pollinators showed a significant differences effect on fruit set at the two sites.
3. There is no significant effect in fruit weight and size at the two location, pollen source did not affect fruit length and circumference at Mandeli Location, whereas they differ significantly at Baladruz Location, where Asfar male gave the highest values for both characters.
4. The four pollen source differ significantly in their effect in fruits Total sugar percentage at both locations, while reduced sugar percentage did not differ significantly.
5. Pollen source affected significantly fruits percentage at harvest. Rissasi source gave the highest percentage among the four sources at Mandeli location, while the percentage did not differ significantly at Baladruz location.
6. Pollen grains from Ghanami Red and Rissasi characterized in having the highest viability percent, while Aswad male showed the lowest one.
7. Pollen grains from Aswad and Ghanami Red gave the highest germination percentage.

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8. Asfar Pollen source gave the highest yield, while Rissasi male gave the lowest one for both locations.

