

# Comparative studies on some plum cultivars

Ashraf AbdEl-Aziz Ahmed Farrag

The present investigation was undertaken during the two successive 2001 and 2002 seasons on eight plum cultivars namely, Hollywood, Methly, Climax, Golden Japanese, Santa Rosa, Beauty, El-Dorado and Durado plum trees grown in Experimental Station of El-Kanater belonging to Horticultural Research Institute, Kalyobia Governorate. The investigated trees were about 11 year-old, budded on Mariana rootstock except both El-Dorado and Durado cultivars were budded on Nemaguard peach rootstock. The selected trees were healthy, nearly uniform as possible in vigour, planted at five meters apart in a clay loamy soil and received regularly the same horticultural practices adopted in the region. This study was carried out to evaluate and throw some lights on the following aspects: 1. Phynological phase. 2. Vegetative growth measurements. 3. Leaf nutritional status. 4. Percentage of fruit set and tree fruiting. 5. Fruit characteristics.

**SUMMARY and CONCLUSION**

The obtained data can be summarized as follows: IV — I - Phynological phases: With regard to the start of vegetative bud breaking of some plum cultivars under study, the obtained results showed that Hollywood cultivar was the earliest one, it started on March 31<sup>11</sup> and 8<sup>th</sup> in both 18 & 21<sup>14</sup> seasons, respectively. Meanwhile, both El-Dorado and Santa Rosa cultivars ranked the last (March, 14<sup>th</sup> and March, 18<sup>th</sup>) in both 2001 and 2002 seasons of study, respectively these of both El-Dorado and Golden Japanese were the most delayed cultivars. Moreover other cultivars came in between. Furthermore, the difference between the earliest and the latest one reached about 11 days in the 2001 season. Concerning the floral bud breaking Hollywood plum cultivar was the earliest cultivar, it occurred on February 28<sup>th</sup> and March 3<sup>r-1</sup> in first and second seasons, respectively. Meanwhile, other plum cultivars were in between. The difference between the earliest and latest cultivars reached about 12 and 14 days in the first and second seasons, respectively. Regarding the date of full bloom, the obtained data showed that the full blooming stage took place early in Hollywood cultivar on March 2<sup>18</sup> and 25<sup>th</sup> in 18 & 2<sup>1</sup> seasons, respectively. While full bloom of both Santa Rosa and Beauty cultivars was obviously delayed through approximately the 18 week of April during both seasons of study. Other plum cultivars under this study ranked in between taking into consideration that difference between the earliest cultivar and the latest one reached about 13 or 10 days during the 2001 and 2002 seasons, respectively. As for the duration extended from start of floral bud breaking till full blooming stages, evaluated plum cultivars varied greatly in this respect. The tallest duration was closely related to Beauty cultivar (25-30 days) followed by both El-Dorado and Durado cultivars (25-26 days). The shortest period was observed with Golden Japanese (14-18 days), while other cultivars were in between. As for the maturation date, it is quite clear that the evaluated 8 cultivars could be generally classified into the following groups: 1-The first group included Hollywood, Beauty, Methly and Clymax and to some extent Golden Japanese, which reached maturation stage through nearly the 18<sup>th</sup> of June. 2-Second group is represented by El-Dorado, Durado and Santa Rosa which are the delayed ones and their maturation took place nearly at the last week of June.