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ABSTRACT:

Argania Spinosa (L.). Skeels is an endemic tree of southwest Morocco, which ranks third nationally in forest resources, after the holm oak and cedar. It is a tree that can live up to 250 years. The current geographical area of the argan tree covers over 00 870.0 ha. It plays a very important socio-economic role and ecological. Its economic role is mainly related to the sale of its main product; argan oil.

This work is to highlight the effect of fruit maturity stage on the amount of oil, acidity and composition of fatty acid and sterols. the amount of oil and acidity were not significantly influenced by the stage of maturity in the conditions of our experiments. The oleic acid composition is not significantly affected by maturity. However linoleic acid accumulates in the mature fruit (and late intermediates) with respect to the oil of early fruits; For saturated fat, we noted a few significant differences between palmitic acid and stearic acid. The kinetics of the sterols in the fruit according to their maturity shows that spinastérole decreases with maturity and changes a little significantly between the early stage and the other two stages. However schottenol content increases with maturity.

Keywords: Amount of oil; Fruit maturity stage; Quality.

MATERIEL AND METHODE

The trees sampled in June 2015 and studied for their morphological and morpho-physiological, have three stages of fruit ripening on the same footing: fruit precocious, intermediate and late fruit.

RESULTAT

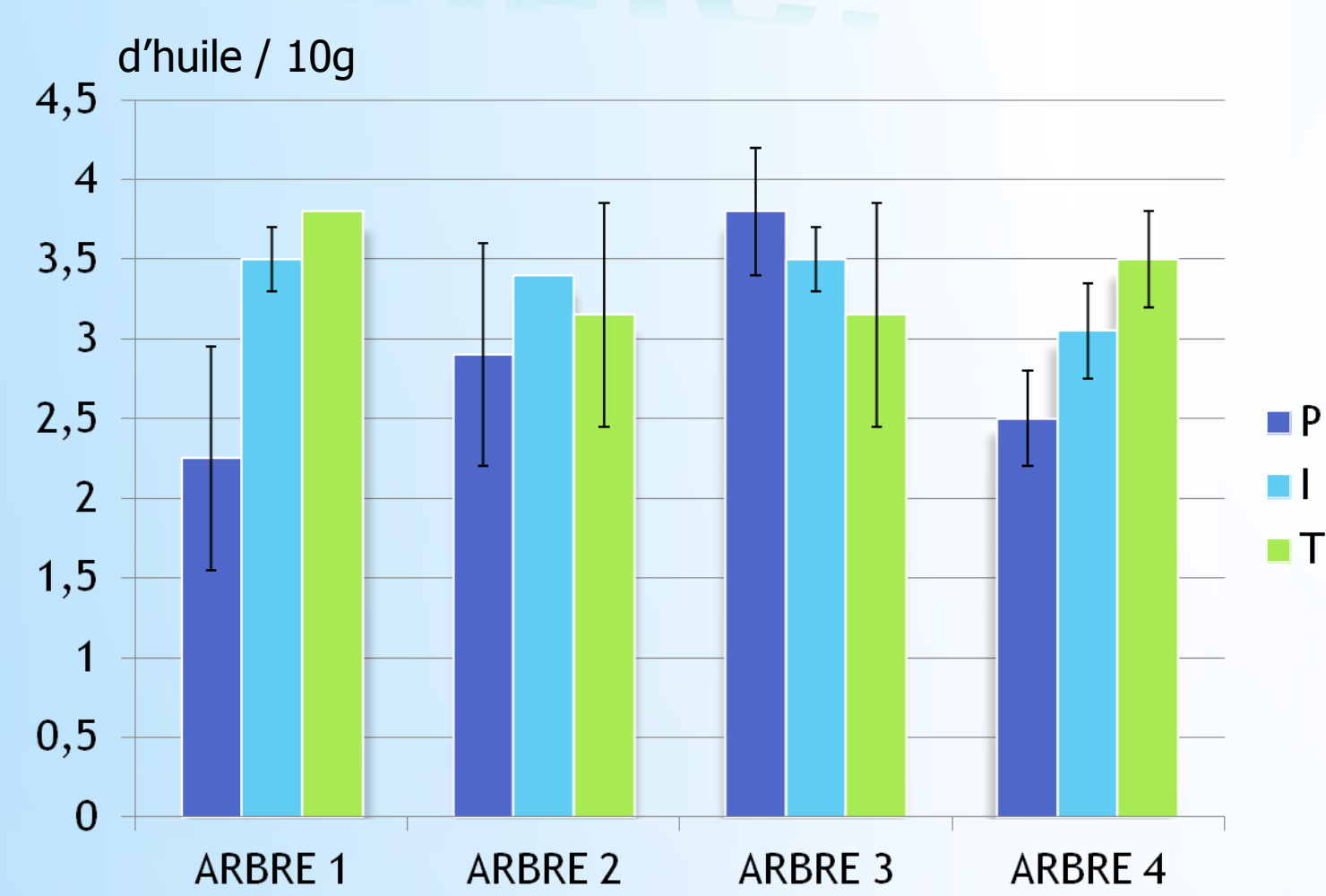


Figure 1: the amount of argan oil / 10g of Amondans in different stages of maturity

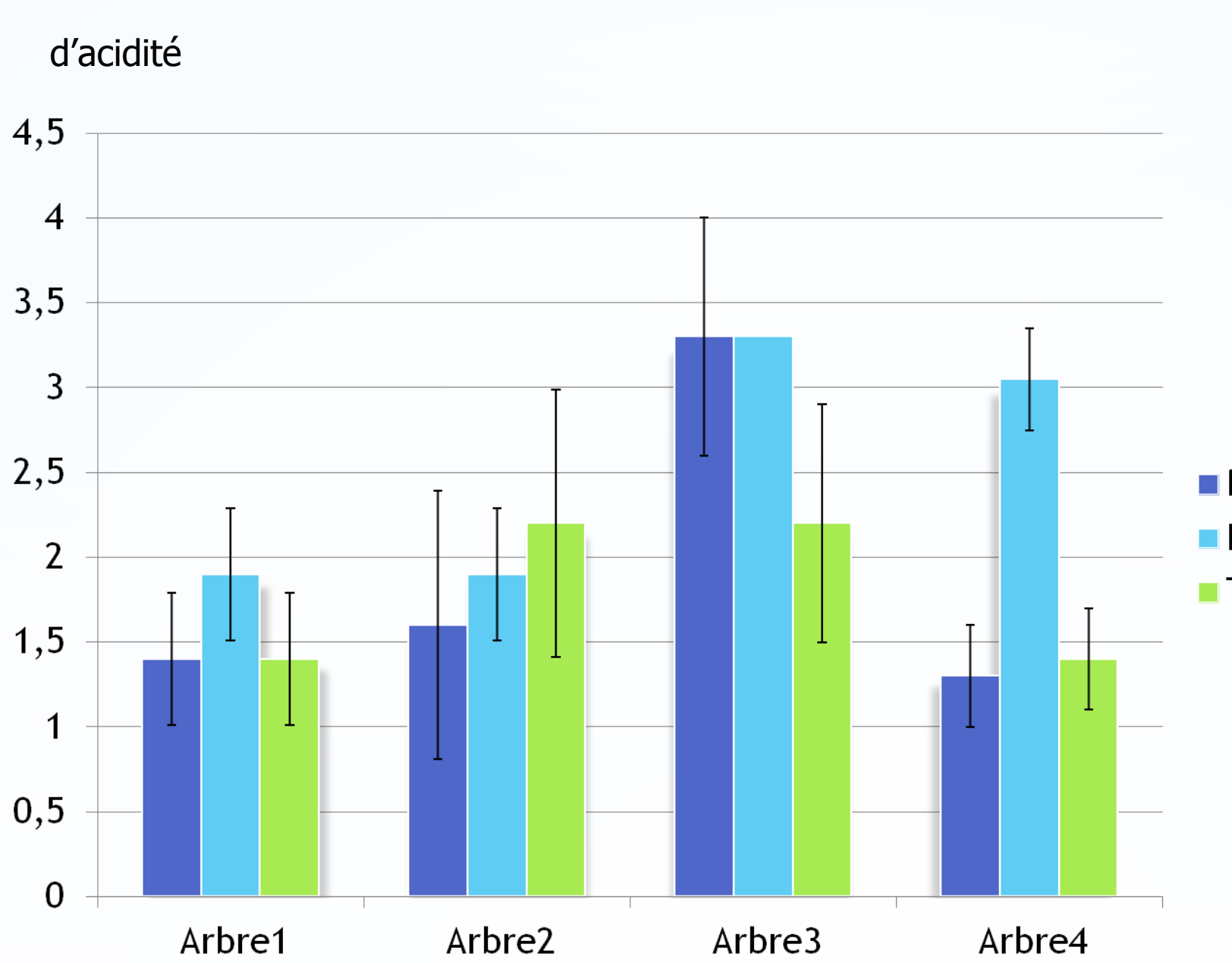


Figure 2: The Argan oil acidity according to the stages of maturity

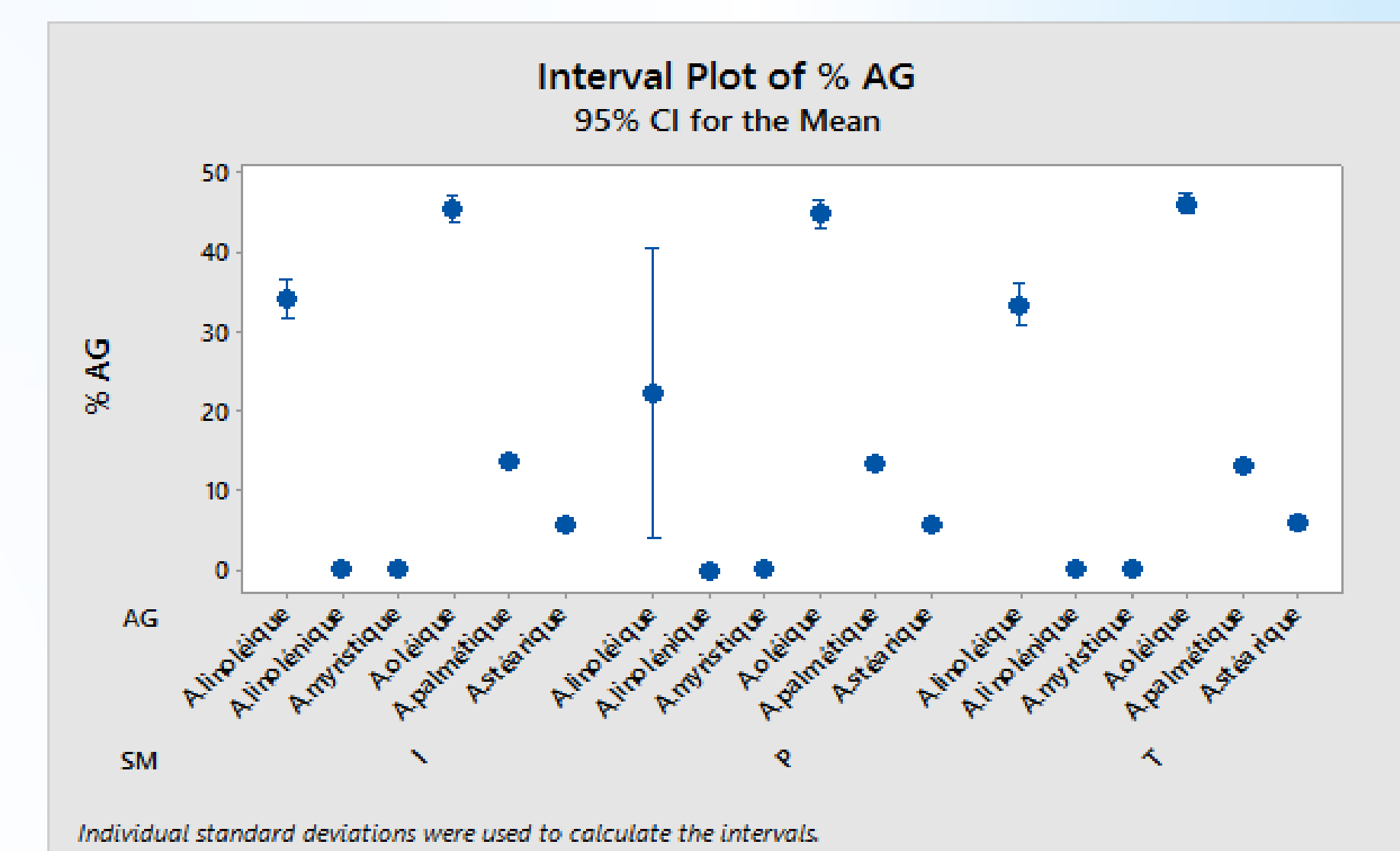


Figure 3: fatty acid composition according to the stages of maturity

➤The oil content varies with the maturity and maximum in T fruits and intermediate fruit but a slight decrease for early fruit yet these changes are not significant enough to say that the stage of maturity has an effect on the oil content .

➤Results shows that there is no significant difference between the different stages of maturation whereas maturation has not an effect on the acidity.

➤the oleic acid does not change significantly during maturity
 ➤linoleic acid present accumulation in said intermediate and late fruit and mark a diminution avec maturity
 ➤an insignificant difference between palmitic acid and stearic acid

➤the spinasterol decreases with maturity and changes a little significantly between the early stage and the other two stages
 ➤schottenol content increases with maturity.

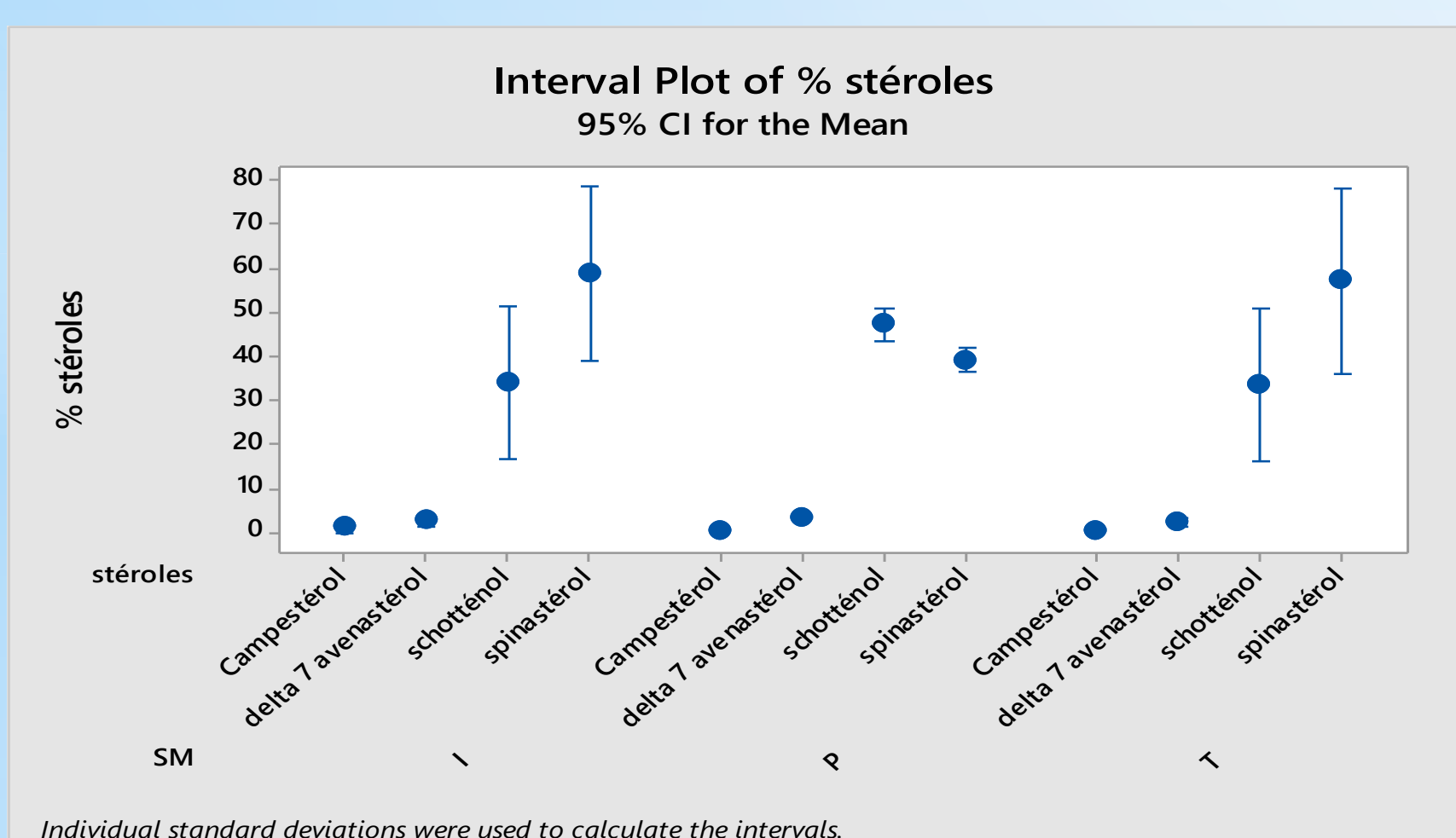


Figure 4: sterol composition according to the stages of maturity

CONCLUSION ET PERSPECTIVES

➤maturation is a factor determining the quality of oil obtaining oleic-linoleic quality oil-rich spinasterol requires the completion of a collection of seeds or mature mid or late
 ➤a rich oil demand schottenol harvest of early fruits.