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**Variation in the yield of oil from mature wild *Moringa* tree seeds collected from different regions of Punjab, Pakistan**

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**Abstract**

*Moringa oleifera* L. is native to Indo-Pak and is locally well known as “Sohanjna.” Thisstudy was designed to explore the yield of seeds and oil extracted from seeds of mature wild *Moringa* trees from different locations of Punjab, Pakistan. Six locations {Faisalabad (FSD),Rahimyar Khan (RYK), Bahawalpur (BWP), Layyah (LAY), Multan (MUL) and Khanewal (KWL)} were selected and five mature trees (at least five years old) were tagged in each location for study. Data regarding seeds and oil yield was taken for two years (2014 and 2015). Seeds and oil yields were found significantly (*p*<0.05) different among locations during both years of study. Maximum pod length, pod weight, number of seeds per pod, seeds weight per pod, number of pods per tree and seeds weight per tree (4.11 and 3.77 kg) were achieved at RYK during both the growing seasons. Oil content at all locations differed significantly for both the years of study. Maximum oil content (35.95 and 37.02%) and oil yield per tree (1.48 and 1.40 kg) were obtained by RYK landrace during both the years of study. Physiochemical characteristics, oxidative stability, fatty acid and sterol composition had little variability in oil content of samples collected from different locations. Physio-chemical characteristics of oil from all the landraces were noted as: refractive index (40°C) (1.4622-1.4631), saponification value (176.01-182.89), iodine value (67.31-71.93) and free fatty acids contents (0.41-0.49). Peroxide value, specific extinctions at 232 and 270 nm and *p*-anisdine value of oil did not differ among the landraces during both the seasons. Fatty acidsand sterol composition of oil from landraces were similar in both the growing seasons. Oleic acid contributes more than 70% of total fatty acids in seed oil of all the landraces.

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