PUMPKIN SEED (*Cucurbita pepo* L.) PRODUCTION UNDER DIFFERENT NITROGEN DOSES

Ali ÜNLÜKARA\(^1\)  İhsan Serkan VAROL\(^1\)  Adem GÜNĔŞ\(^2\)

\(^1\) Erciyes University Seyrani Agricultural Faculty Biosystem Engineering Department, Kayseri/Turkey
\(^2\) Erciyes University Seyrani Agricultural Faculty Plant Nutrition and Soil Science Department, Kayseri/Turkey

*Correspondence: unlukara@gmail.com*

Abstract
Middle Anatolian Region especially Kayseri and Nevşehir provinces produce 68 percent of total pumpkin production of Turkey. This study was conducted in Kayseri to determine different nitrogen doses on Develi population pumpkin plant (*Cucurbita pepo* L.) irrigated with drip system in Erciyes University Agricultural Research and Training Center. Three nitrogen doses \(N_9 = 90\) kg ha\(^{-1}\), \(N_{12} = 120\) kg ha\(^{-1}\) and \(N_{14} = 140\) kg ha\(^{-1}\) were applied during pumpkin seed sowing as a base fertilizer by 15-15-15 compose mineral fertilizer. Additional 5 kg ha\(^{-1}\) nitrogen were applied to all the treatments during fruit enlargement period by KNO\(_3\) fertilizer. Root zone soil moisture was monitored by Neutron moisture meter and depleted water applied by drip irrigation system. Each nitrogen treatment was replicated three times in the experiment designed according to completely randomized plots in blocks. Pumpkin plant consumed nearly 390 mm water under drip irrigation during growing season. Pumpkin seed yields were 1036, 899 and 947 kg per hectare and fruit yields 45.89, 41.74 and 47.28 tons per hectare for \(N_9\), \(N_{12}\) and \(N_{14}\) treatments, respectively. Higher nitrogen application treatments were not caused significant differences in mean fruit weight, fruit number per plant, fruit sizes, fruit yield, seed yield, 1000-seed weight and seed percent above 9 mm, 8 mm and below 8 mm sieve sizes. \(N_9\) treatment look likes sufficient to supply nitrogen needs of Develi population pumpkin under drip irrigation system.

Keywords: Pumpkin seed, nitrogen doses, drip irrigation, Develi population