

The Effects of Different Organic Farming Methods on Berry Production by Finnish Sea Buckthorn Cultivars

Heinäaho, M.¹, Aniszewski, T.², Pusenius, J.³, & Julkunen-Tiitto, R.²

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Abstract

*The effects of different organic farming methods on berry production by two Finnish sea buckthorn (*Hippophae rhamnoides* L. ssp. *rhamnoides*) cultivars, "Terhi" and "Tytti," were studied in a field experiment for four years in Merikarvia, western Finland. Four organic fertilizers, five mulches, and two land contours were studied. Two experiments were conducted. The first, a fertilization experiment, included the fully crossed effects of four different fertilizers and two land contours in the cultivars "Terhi" and "Tytti." The other, a mulch experiment, included the fully crossed effects of five different mulches and two land contours in the cultivar "Tytti." The sea buckthorn bushes produced a small number of berries in the second growing season. The yield improved in the third growing season. The first good yield was harvested in the fourth growing season in 2007. "Terhi" produced larger yields than "Tytti." Fertilizers had a significant effect on yield in the second growing season. Apatite increased the yield in "Terhi" grown on the flat surface, while biapatite increased the yield on the ridge in "Terhi." In the third and fourth growing seasons, "Terhi" had a better yield on the ridge than on the flat surface. The effect of mulches depended on land contours in the second growing season. Straw increased berry production on the flat surface compared to other mulches. The results of this experiment provide information on ways to improve berry yield when organic farming methods are used for sea buckthorn.*

1 Lehtokatu 2, FIN-38700 Kankaanpää, Finland, e-mail: merja.heinaaho@netti.fi

2 Faculty of Biosciences, University of Joensuu, P.O. Box 111, FIN-80101 Joensuu, Finland

3 Joensuu Game and Fisheries Research, Yliopistonkatu 6, FIN-80100 Joensuu, Finland