

Abstract

Survey and data collection of the cultivation process and postharvest handling of organic vegetables are different across all ten Royal Project sites, namely, Inthanon Royal Agricultural Station, Angkhang Royal Agricultural Station, Tung Roeng Royal Project Development Center, Wat Chan Royal Project Development Center, Huai Som Poi Royal Project Development Center, Mae Sa Pok Royal Project Development Center, Gae Noi Royal Project Development Center, Tung Luang Royal Project Development Center, Huai Nam Rin Royal Project Development Center, And Huai Pong Royal Project Development Center. The study found that both processes, starting from soil preparation, cultivation, harvesting, postharvest practice at packing centers/stations, and delivery methods of organic vegetables to Chiang Mai Royal Project Produce Center were different. Quality of organic vegetables on farms of each individual centers/stations also varies.

Postharvest loss survey of organic vegetables as they moved along the vegetable supply chain, starting from farm area, Royal Project Development Center, Chiang Mai Royal Project Produce Center, Chiang Mai Royal Project Foundation Retail Shop as well as shelf life of the organic vegetables found that choy sum from Inthanon Royal Agricultural Station incurred a loss of 13.09, 22.96, 15.55 and 0.34 percent, respectively. The shelf life was 6.28 days. Postharvest loss of green oak leaf lettuce was found at 6.68, 10.07, 32.68 and 5.01 percent, respectively, with the shelf life of 5.84 days. Butter head lettuce from the Angkhang Royal Agricultural Station had a loss of 46.01, 3.35, 27.12 and 4.42 percent, respectively, and the shelf life was 6.29 days. Meanwhile sweet cabbages had a postharvest loss of 39.51, 9.85, 11.25 and 3.33 percent with the shelf life reported at 13.53 days. Green oak leaf lettuce from the Tung Luang Royal Project Development Center showed the postharvest loss at farm areas, Royal Project Development Center, Chiang Mai Royal Project Produce Center, Chiang Mai Royal Project Foundation Retail Shop of 26.13, 0.00, 19.35 and 4.26 percent with the shelf life of 7.85 days. Cos lettuce of the Tung Luang Royal Project Development Center incurred a postharvest loss of 27.49, 0.00, 19.35 and 4.26 percent, respectively with a shelf life of 5.98 days. The postharvest loss of choy sum of the Huai Pong Royal Project Development Center a farm area, Royal Project Development Center, Chiang Mai Royal Project Produce Center and Chiang Mai Royal Project Foundation Retail Shops was reported at 25.40, 3.32, 29.42 and 2.37 percent, respectively, with the shelf life of 6.44 days. For baby pak-choi, the postharvest loss was 40.21, 32.52, 34.78 and 3.87 percent, respectively with the shelf life of 10.60

days. Choy sum from Tung Roeng Royal Project Development Center incurred the postharvest loss of 20.93, 4.63, 31.15 and 2.32 percent at the farm area, Royal Project Development Center, Chiang Mai Royal Project Produce Center and Chiang Mai Royal Project Foundation Retail Shop, respectively. The shelf life of the choy sum was found at 7.56 days. The postharvest loss of chayote shoots was found at 0.00, 13.07, 6.63 and 0.08 percent, respectively, and the shelf life was 6.75 days. The head lettuce from Wat Chan Royal Project Development Center incurred a loss of 23.96, 33.42, 19.11 and 3.27 percent respectively at farm areas, Royal Project Development Center, Chiang Mai Royal Project Produce Center and Chiang Mai Royal Project Retail Shops. The shelf life was found at 7.40 days. Meanwhile, the cos lettuce showed the postharvest loss at 12.90, 36.24, 28.64 and 2.04 percent respectively. And the shelf life was 6.80 days. Pak-choi of Mae Sa Pok Royal Project Development Center had the postharvest loss at the farm area, Royal Project Development Center, Chiang Mai Royal Project Produce Center and Chiang Mai Royal Project Retail Shop of 7.23, 43.86, 33.05 and 1.91 percent respectively with the shelf life of 7.77 days. Baby pak-choi showed the postharvest loss of 7.79, 46.49, 30.97 and 3.80 percent, respectively with the shelf life at 4.87 days. The postharvest loss of sweet cabbages from Huai Som Poi Royal Project Development Center was found at 27.47, 16.21, 27.65 and 4.78 percent at the farm area, Royal Project Development Center, Chiang Mai Royal Project Produce Center and Chiang Mai Royal Project Retail Shops, respectively. Its shelf life was shown at 13.14 days. Baby cos lettuce had the postharvest loss at 18.72, 41.90, 28.59 and 3.14 percent, respectively, and its shelf life was 6.21 days. Green oak leaf lettuce from Huai Nam Rin Royal Project Development Center incurred the postharvest loss at farm areas, Royal Project Development Center, Chiang Mai Royal Project Produce Center and Chiang Mai Royal Project Retail Shop of 7.12, 56.49, 62.21 and 0.00 percent, respectively with the shelf life found at 5.60 days. The red oak leaf lettuce had its postharvest loss found at 21.45, 53.80, 46.19 and 0.00 percent, respectively with its shelf life was at 5.08 days. Butter head lettuce from Gae Noi Royal Project Development Center showed the postharvest loss at farm areas, Royal Project Development Center, Chiang Mai Royal Project Produce Center and Chiang Mai Royal Project Retail Shop at 18.93, 23.88, 24.95 and 1.38 percent, respectively with the shelf life at 4.13 days. The postharvest loss of head lettuce stood at 25.20, 25.71, 24.17 and 2.81 percent, respectively, and its shelf life was 5.07 days.