

Abstract:

Shallot (*Allium cepa* L. var. *ascalonicum* Baker) is widely cultivated in Ethiopia and preferred by most Ethiopians for its strong pungent culinary value. Shallot is commonly propagated by bulb and exhibits high after-harvest and storage losses. Absence of cultivars with good keeping quality and improved storage facilities usually aggravate this problem.

High storage losses compel producers in Ethiopia to sell their produce immediately after harvest when the price is low. At harvest time, the market is over flooded with shallot and the price is very low while the supply is low and the price is high at other times. Surprisingly enough, many farmers in Ethiopia are unable to keep planting materials from their own shallot harvest for the next planting season or year and they buy planting materials during planting time, which are expensive. Many researchers in different countries also indicated (Vimala, et al, 1994; Chvaov-s, 1978; Wiles, and Midmore, 1994; Sangakkara, and Midmore, 1994; Rabinowitch and Currah, 2002) that although shallots are widely consumed in various countries, the main constraints to commercial production are the high cost and scarcity of shallot planting material emanated from storage problem.

At Debre Zeit research center, fifty-seven shallot cultivars have been evaluated for their keeping quality for four seasons in a light diffused storage with wire mesh-mesh wall and shelves at ambient temperature and relative humidity.

Bulbs multiplied using the Centers' recommended management practices were cured, and dried, and kept in the store and evaluated every other week for rotting, sprouting and physiological weight loss.

After four months of storage period, cultivars Dzsht-3, Dzsht-2, Dzsht-5, S1-63-89, Dzsht-op-s5, Wolliso and DTKT-27 had significantly good keeping quality retaining 66, 64, 63, 62.4, 60.7, 60.4 and 59.7%, respectively, saleable bulbs. Cultivars Dzsht-57, Dzsht-25, Dzsht-74, Dzsht-op-S14, Dzsht-68, Dzsht-140 and DTKT-61 were the most perishable exhibiting significantly higher storage losses of 79.6, 73.3, 72.6, 70.1, 69.6, 69 and 68.8%, respectively.