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Effects of Harvest Time on Shoot Biomass and Yield of Turmeric (*Curcuma longa* L.) in Okinawa, Japan

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Abstract: : This study was conducted in 2003–2004, 2005–2006 and 2006–2007 in Okinawa, Japan (24–28°N and 126–130°E) to evaluate the effects of harvest time on biomass accumulation pattern in shoots and rhizomes (yield) of turmeric (*Curcuma longa*) for determining critical harvest time. Four lines/cultivars, Aki Ukon, Ryudai Gold, Ryudai-11 and Ryudai-44 were tested. Turmeric was planted in April every season, and biomass was monitored at different dates. Shoots of all turmeric lines/cultivars remained green until November, thereafter turned yellow and completed drying in January every season. Turmeric shoot biomass increased until November and decreased thereafter. Fresh yield of turmeric harvested in November, December and January was almost the same, but dry yield increased significantly with the delay in harvest until January. Percentage (%) of dry yield to fresh yield was 7–10 in September and October, 10–16 in November, 14–22 in December and 15–24 in January; and yield-shoot ratio in dry weight was 0.2–0.5, 0.5–1.2, 0.9–2.2 and 1.3–3.0, respectively. All the lines/cultivars maintained a similar biomass accumulation pattern during the harvest time in each season. These results suggest that maximum dry yield is obtained when turmeric shoots wither completely, and turmeric should be harvested in January for higher dry yield in Okinawa.

Keywords: [Dry matter accumulation pattern](#), [Dry matter translocation](#), [Harvest time](#), [Rhizomatous plant](#), [Root crop](#), [Yield-shoot ratio](#)

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