

IDENTIFICATION OF OPTIMUM SOWING DATE FOR QUINOA (*Chenopodium quinoa*)

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Executive Summary

The project was conducted at the Agronomy Farm of Sher-e-Bangla Agricultural University (SAU), Dhaka during November, 2017 to July, 2018 to find out the suitability of growing quinoa in Bangladesh and its optimum sowing date. The two factors experiment comprised of Factor A: Variety (2) - Titicaca (V_1) and Vikinga (V_2), Factor B: Sowing dates (5) - November -10 (S_1), December -10 (S_2), January -10 (S_3), February -10 (S_4) and March -10 (S_5). Two Danish varieties Titicaca and Vikingawas collected from DAE, Bangladesh. The land was fertilized with Urea, Triple super phosphate (TSP) and Muriate of potash (MoP) @180, 152 and 63 kg ha⁻¹ as a source of nitrogen (N), phosphorous (P) and potassium (K), respectively. Full dose of TSP and MoP along with one third urea were applied in final land preparation as basal dose and the rest amount of urea was top dressed at 25 and 40 DAS. The experiment was laid out in a split-plot design with three replications where varieties were assigned in the main plot and sowing dates in sub-plot. The seeds were sown in 30 cm rows having a depth of 2-3 cm. Intercultural operations were done as and when necessary. Five plants from each plot were randomly selected from which plant height, branches plant⁻¹, length of inflorescences, 1000-seed weight, seed and straw yield were recorded. Harvesting was done when 90% of the grain became green to yellow (Titicaca) and red (Vikinga) in color. The matured crops were collected by hand picking from each plot. The collected crops were sun dried, threshed and the seeds were separated, cleaned and dried in the sun for 3 to 5 consecutive days for achieving safe moisture of seed. The collected data were analyzed statistically using Crop Stat and the mean differences were adjudged by least significant difference (LSD) test at 5% level of significance. The higher plant height (63.75 cm), seed yield (0.77 t ha⁻¹) and straw yield (0.89 t ha⁻¹) was obtained from Titicaca. November -10 sowing showed the higher plant height (62.54 cm), inflorescence length (29.62 cm), 1000-seed weight (2.56 g), seed yield (1.09 t ha⁻¹) and straw yield (1.25 t ha⁻¹) (Table 1). The variety Titicaca sown in November -10 gave the highest plant height (72.83 cm), branches plant⁻¹ (25.20), 1000-seed weight (2.58 g), seed yield (1.16 t ha⁻¹) and straw yield (1.33 t ha⁻¹).

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