



Research Article

Behaviour of different pre and post-tasseling irrigation schedules in bed planted winter maize (*Zea mays* L.)

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Summary

The study on behaviour of different pre and post-tasseling irrigation schedules in bed planted winter maize (*Zea mays* L.) was conducted at Punjab Agricultural University, Ludhiana on loamy sand soil. The experiment was laid out in twelve treatment combinations of different irrigation schedules with four pre-tasseling (55, 70, 85 and 100) and three post-tasseling (60, 80 and 100) treatments replicated four times in randomized block design (RBD) showed that high frequency of 60 mm CPE in post-tasseling phase coincides with high evaporative demand resulted well established crop plants with better root system and anchorage of plants reduces the chances of lodging and breakage maintained their superiority in growth, source size, sink capacity and strength resulted more grain yield 74.8 q/ha and the grain yield was declined to 46.0 q/ha with widening a gap in irrigation intervals while shifting CPE from 60 to 80 mm and 100 mm. So, $I_{70/60}$ was observed to be best irrigation schedule for winter maize under Punjab conditions which resulted in 74.2 q/ha grain yield. During the reproductive phase the canopy temperature showed a negative and significant relationship with dry matter (DM), cob girth and cob length, number of grains per cob, 1000-grain weight and grain yield which explained 53 to 77 per cent variation in different characters.

Key words : Pre and post-tasseling, CPE, Irrigation schedules, Dry matter, Significant

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