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Assessment of abnormalities in reproductive organs of hot pepper induced by low night temperature

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Low night temperature (LNT) adversely affects productivity of pepper (*Capsicum annuum* L.) grown in unheated greenhouses. Flower abnormalities were investigated in the local hot pepper cvs. Beldi and Baklouti grown in a growth chamber at a day/night temperature regime of low (25/10°C, LNT) or optimum night temperature (ONT; 25/20°C, as a control). The LNT induced abnormalities in pepper flowers but sensitivity was cultivar dependent; increased ovary diameter in 'Baklouti' (40% more than that in 'Beldi') was associated with a decrease in style length. Numbers of ovules decreased more than 60% under LNT (more so in 'Baklouti'). In addition, longitudinal lengths and transverse diameters of ovaries, measured by transverse section, were affected by cultivar and temperature regime. Fruit set percentage was lowest and fruit 20 characteristics were poorest when flowers were self-pollinated under LNT, although artificial pollination with pollen from ONT increased fruit set. More seed per fruit, and heavier and longer fruit, occurred when flowers were pollinated with pollen from ONT than when pollen from LNT was used. Where LNTs have negatively influenced yield, pepper growers need to consider alternative growth and production strategies to reduce 25 damage to flowers.

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Fertigation techniques for aerobic rice

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Water is a natural resource, continues to be the scarce commodity for agriculture. The monsoonal characteristics like onset, withdrawn, quantities are highly undefined over a location. Of late, it is further dictated by climate change scenario. Every year crop suffers in rainfed belts by unknown degrees. The scenario of irrigated agriculture though is set to be safe, yet the threat of untimely filling, insufficient storage etc leads to in-convince. As a result, rice a default choice crop of irrigated belt, always suffers in expressing its full potentiality. The success of rice as a rainfed crop set aside many unruly situations like methane emission, more water usage and soil destruction of traditional cultivation. In almost all command areas, as a crop alternatives, arable crops are recommended for second season and rice is discouraged for many known reasons such as soil health status, decreasing productivity, insufficient water supply etc., yet farmers still grow to a larger extent. In many locations, rice succeeded as an aerobic crop and regarded as future key in meeting the demand of hungry mouth. It is worth trying by adopting aerobic rice in these deltas of command area for second season as all farmers are well-worse with its cultivation. In the light of water saving and efficient fertilizer usage, evolving suitable package for these light soils especially for summer season is the need of the hour so that crop can be explored better for its yield potential. On these lines of thinking, the present study is an effort to exacting the cultural practise through drip irrigation system with a possibility of evolving suitable fertigation schedule for ensuring better utilization of resources.

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