



Impact of Weather on Apple Production in Hungary

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Successful apple production depends on the climate, especially on the local climate. The study examines the impact of the weather on apple production in recent years. We investigated the relation between the weather conditions and the apple productions in the eastern part of Hungary. Our experimental site was a 20 hectares 'Starking' and 'Jonathan' orchards planted in 1976. The plantation was eliminated in 2008.

The lack of the temperature extremes is the most favorable conditions for high production. The apple is especially sensitive to spring and fall frost. The critical value is -4°C for the buds, -2°C for the flowers and -1°C for the fruits. Production might decrease if the bees are not active due to low temperatures. Production may reduce under humid and rainy conditions especially during the flowering period.

Apple requires 600-800 mm precipitation, from which 350-550 mm is needed in growing season. The growth of shoots and the fruit weight can reduce by the drought. Knowing the exact climatic demand helps to adapt to the potential adverse effects of the climate change.