

Study of fruit drop pattern in date palm (*Phoenix dactylifera* L.)

Kapil Mohan Sharma^{1*}, D. A. Baidiyavadra¹, M. N. Chaudhari¹, C. M. Muralidharan²
and A. H. Sipai³

¹ Date Palm Research Station, Sardarkrushinagar Dantiwada Agricultural University,
Mundra-Kachchh, Gujarat, India.

² Directorate of Research, Sardarkrushinagar Dantiwada Agricultural University, Mundra-
Kachchh, Gujarat, India.

³ Agroforestry Research Station, Sardarkrushinagar Dantiwada Agricultural University,
Mundra-Kachchh, Gujarat, India.

*Email: k.m.sharma456@sda.u.edu.in Orcid: <https://orcid.org/0000-0003-4714-7854>

Receipt: 15.03.25

Revised: 05.04.25

Acceptance: 06.04.25

DOI: 10.53552/ijmfmap.11.1.2025.190-195

License: CC BY-NC 4.0

Copyright: © The Author(s)

ABSTRACT

Fruit drop is a common phenomenon in date palm which may significantly affect yield and commercial viability. To understand the pattern of fruit-drop the study was done in three date palm genotypes: Barhee, MDP-20, and MDP-21, under the Gujarat North West Agro-Climatic Zone (Zone-V) at the Date Palm Research Station, Mundra-Kachchh. The research was conducted over three years, with periodic observations of fruit drop at different growth stages. The results reveal that the highest fruit drop occurs between 30-45 days after pollination, followed by the initial 0–30day period. Understanding fruit drop dynamics is crucial for development of effective management strategies, including optimized irrigation, nutrient application, and climatic interventions. This will also serve as a base information to improve fruit retention and ultimately enhancing date palm productivity and economic returns for farmers.

Keywords: Date palm, fruit drop, fruit retention, *Phoenix dactylifera*