

1. Record Nr.	UNINA9910827041003321
Titolo	Dates : postharvest science, processing technology, and health benefits // editor, Muhammad Siddiq ; associate editors, Salah M. Aleid, Adel A. Kader
Pubbl/distr/stampa	Chichester, West Sussex : , : John Wiley & Sons, Inc., , 2013
ISBN	1-118-29241-3 1-118-29243-X
Descrizione fisica	1 online resource (335 p.)
Altri autori (Persone)	SiddiqMuhammad <1957-> AleidSalah M KaderAdel A
Disciplina	641.3/462
Soggetti	Dates (Fruit) Date palm
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Dates: Postharvest Science, Processing Technology and Health Benefits; Contents; Preface; Obituary: Professor Adel A. Kader; List of Contributors; 1 Overview of Date Fruit Production, Postharvest handling, Processing, and Nutrition; Introduction; World production and trade; Marketing and consumption trends; Date palm growth and fruit production; Cultivars; Maturity stages; Harvesting and fruit quality/grades; Postharvest handling and storage; Postharvest quality evaluation; Date processing and by-products; Food safety considerations; Nutritional and health considerations; Nutritional profile Bioactive compounds and health significanceSummary; References; 2 Date Palm: Production; Introduction; Ecogeographical boundaries and limitations; Agro-ecology: implications for date production; Production systems: oases and plantations; Management practices; Integrated pest management; Propagation and breeding; Cultivars: diversity and production potential; Biotic and abiotic stresses; Research needs and future prospects; Conclusions; References; 3 Biology and Postharvest Physiology of Date Fruit; Introduction; Botanical description; Date palm;

Date fruit; Fruit growth and development

PollinationFruit set and thinning; Fruit growth/maturity stages; Factors affecting fruit development and ripening; Bagging of fruit bunches; Compositional changes during fruit growth and maturity; Maturity and harvesting indices; Postharvest physiology of dates; Fruit quality disorders; Conclusions; References; 4 Insect Pests of Stored Dates and Their Management; Introduction; Storage of dates; Damage of stored dates due to insect infestation; Major insect pests attacking stored dates; Almond moth [*Ephestia cautella* (Walker)]; Raisin moth [*Ephestia figulilella* (Gregson)]

Sap beetles (nitidulids)Indian meal worm [*Plodia interpunctella* (Hubn)]; Carob moth [*Ectomyelois ceratoniae* (Zeller)]; Saw-toothed grain beetle [*Oryzaephilus surinamensis* (L.)]; Insect development in date storage facilities; Sampling detection of insects in stored dates; Insect management during dates storage; Fumigation of dates in storehouses; Modified atmosphere (MA); Biological control of stored-dates pests; Microwave energy to control postharvest date pests; Irradiation treatment; Ozonation (ozone treatment); Conclusion; References; 5 Harvesting and Postharvest Technology of Dates

IntroductionFruit development; Harvesting; Artificial ripening; Drying (dehydration); Hydration; Preparation for market: postharvest operations; Transportation to the packinghouse; Quick initial sorting; Cleaning; Drying; Sorting; Sizing/grading; Metal detection; Surface coatings; Packaging; Cooling; Storage conditions; Responses to controlled atmospheres; Physical and physiological disorders; Pathological disorders; Disease control strategies; Insect pests and their control; Insect pests; Control methods; Processing; Food safety considerations; Conclusions; References

6 Packaging Technologies for Dates and Date Products

---

Sommario/riassunto

Dates are an important fruit, especially in many African, Middle-Eastern and Asian countries. In recent years this fruit has gained significant importance in terms of global commerce. During the period 1990-2009, global production of dates saw an increase of 219% and this trend is expected to continue as per FAO projections. Some of the major challenges confronting date fruit production and commerce are issues related to postharvest handling technologies, use of appropriate processing and packaging technologies, food safety aspects and quality assurance. This book provides contemporar

---