Record Nr. UNINA9910768172603321 Advances in research on vegetable production under a changing climate **Titolo** . Volume 2 / / edited by Shashank Shekhar Solankey, Meenakshi Kumari Pubbl/distr/stampa Cham, Switzerland:,: Springer,, [2023] ©2023 3-031-20840-4 **ISBN** Edizione [1st ed. 2023.] Descrizione fisica 1 online resource (381 pages) Collana Advances in Olericulture, , 2367-4091 Disciplina 359.8205 Soggetti Vegetables - Breeding Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Includes bibliographical references and index. Nota di bibliografia Nota di contenuto Chapter 1 Advances in research trends in vegetables under a changing climate: A way forward -- Chapter 2 Emerging obstacles of vegetable production due to climate change and mitigation strategies -- Chapter 3 Impact of climate change on nutraceutical properties of vegetables --Chapter 4 Nutritional stress management in vegetable crops under changing climate scenario -- Chapter 5 Impact of climate change on tuber crops production and mitigation strategies -- Chapter 6 Impact of climate change on leafy vegetables and mitigation strategies --Chapter 7 Impact of climate change on perennial vegetable production and mitigation strategies -- Chapter 8 Impact of climate change on vegetables seed production and mitigation strategies -- Chapter 9 Protected cultivation of high-value vegetables crop under changing climate -- Chapter 10 Impact of climate change on underexploited vegetable crops production and mitigation strategies -- Chapter 11 Improvement of vegetables through grafting techniques in changing climate scenario -- Chapter 12 Improvement of vegetables through molecular breeding in changing climate scenario -- Chapter 13 Kitchen gardening for nutritional security under changing climate -- Chapter 14 Emerging insect-pests of vegetables due to changing climate --Chapter 15 Emerging diseases of vegetables due to changing climate -- Chapter 16 Impact of climate change on postharvest quality of vegetables.

This second volume on the topic will be extremely useful for the

Sommario/riassunto

researchers and postgraduate students working on vegetable crops with a special focus on climate change. Today, the entire world is suffering from global warming and its consequent, climate change. This has emerged as the most prominent global environmental issue and there is an urgent need to mitigate its impact on agriculture. Over the past 20 years South Asia has had a robust economic growth, yet it is home to more than one fourth of the world's hunger and 40% of the world's malnourished children and women. Persistent climatic variability, which results in frequent drought and flood, is among the major reasons for this phenomenon. Vegetables are in general more succulent (have 90% water) and more sensitive to climatic vagaries and sudden changes in temperature, as well as irregular precipitation at any phase of crop growing, can affect the normal growth, flowering, pollination, fruit setting, fruit development and fruit ripening which eventually decreases the yield. The irregular precipitation also causes the soil salinity and is a major challenge in many vegetable growing areas. To mitigate the harmful impact of climatic change there is an urgent need to develop adequate adaptation strategies for adverse effect of climate change and preference should be given to the development of heat, cold, drought, flood and salinity stress tolerant genotypes along with climate proofing through conventional and nonconventional breeding techniques, as well as exploiting the beneficial effects of CO2 enhancement on crop growth and yield. Available evidence shows that there is high probability of increase in the frequency and intensity of climate related natural hazards due to climate change and hence increase the potential threat due to climate change related natural disasters in the world. At present protected cultivation and grafted seedlings are also popularizing among vegetable growers because of the huge scope as well as, molecular breeding, emerging insect-pests & diseases and postharvest quality of vegetables under this climate change scenario. Moreover, underexploited vegetables, perennial vegetable and tuber crops have a more tolerant ability to climate vagaries compare to major vegetables which are also discussed in this book.