Record Nr. UNINA9910299377603321 Autore Tiwari Supriya **Titolo** Tropospheric Ozone and its Impacts on Crop Plants: A Threat to Future Global Food Security / / by Supriya Tiwari, Madhoolika Agrawal Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2018 **ISBN** 3-319-71873-8 Edizione [1st ed. 2018.] Descrizione fisica 1 online resource (207 pages) 363.700973 Disciplina Soggetti Radiation protection Radiation—Safety measures Climate change Agriculture Plant physiology Air pollution Sustainable development Effects of Radiation/Radiation Protection Climate Change/Climate Change Impacts Plant Physiology Atmospheric Protection/Air Quality Control/Air Pollution Sustainable Development Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Chapter1: Ozone Concentrations in Troposphere: Historical and Current Perspectives -- Chapter2: Troposheric Ozone Budget: Formation, Depletion and Climate Change -- Chapter3: Effect of Ozone on Physiological and Biochemical Processes of Plants -- Chapter4: Ozone Biomonitoring, Biomass and Yield Response -- Chapter5: Mitigation of Ozone Stress -- Chapter6: Conclusions and Furture Prospects. The research and its outcomes presented here focuses on tropospheric Sommario/riassunto or ground level ozone, in particular due to its surfacing as a major threat to crop productivity around the world. This book presents the

ozone concentration data for a variety of geographical regions,

examines the factors responsible for its increasing concentrations and its potential effects on physiological and biochemical responses culminating in crop productivity losses which, in turn may pose a serious threat to global food security. Beside this, certain ameliorative measures that could be adopted to assess ozone injury in plants are also discussed. Global climate change scenarios predict a significant increase in future tropospheric ozone concentration. Particular attention is therefore given to evaluate the effect of global climate change on ozone concentrations. Readers will also discover how yield losses due to ozone are related to changes in the socio-economic conditions of the society, especially in South Asian regions. Students and researchers studying crop and soil science, environmental scientists, risk assessment professionals and policy makers will find this book of interest.