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Nota di contenuto	Section 1: Agronanobiotechnology, the impacts on agriculture -- 1. The Agronanobiotechnology in the agro-food industry to preserve the environmental health and improving the welfare of farmers -- 2. Shaping a sustainable future with nanobiotechnology in agriculture -- Section 2: Agronanobiotechnology studies under laboratory, field and greenhouse conditions to improve crop yields -- 3. Agronanobiotechnology as a new strategy to strengthen agriculture -- 4. Nanoencapsulation of inseticides for pest and disease control in crops -- 5. Agronanobiotechnologies to decrease the damage caused on crops by abiotic and biotic factors -- 6. Design and production of nanofertilizers -- 7. Nanofertilizers and their controlled delivery of nutrients -- 8. Incorporation of plant nutrients into nanoparticles: the real benefits -- 9. Effect of nanoparticles on the growth and development of crops -- 10. Agronanobiotechnologies improving the

quality of soil -- 11. Agronanobiotechnologies to improve the water quality in irrigation systems -- 12. Effect of nanoparticles on plants, earthworms and microorganisms -- 13. Agronanobiotechnologies as a useful tool in crop breeding -- 14. Nanodevices and nanocarriers in the agriculture -- Section 3: Nanobiotechnology in agriculture and their advere effects and legal framework -- 15. Agronanobiotechnologies and their environmental effects -- 16. Agronanobiotechnologies and consumers' human rights -- 17. Strategic assessments for an emerging technology -- 18. Legal framework on agronanobiotechnology throughout the world.

Sommario/riassunto

Nanobiotechnology in agriculture is a new knowledge area that offers novel possibilities to achieve high productivity levels at manageable costs during the production and merchandising of crops. This book shows us how we can use the cutting-edge knowledge about agriculture, nanotechnology, and biotechnology to increase the agricultural productivity and shape a sustainable future in order to increase the social welfare in rural areas and preserve the environmental health. Specialists from several countries will provide their feedback on a range of relevant topics such as environment-friendly use of nanofertilisers, nanodevices, nano-food packaging, nanocoating and nanocarriers and their relationship with the modern agriculture.