Recent studies report the effect of biofield treatment on changes in structural characteristics of organic and inorganic matter, on cancer cells in vitro and on overall plant development. This study tested the impact of the same treatment applied to lettuce and tomato seeds and transplants (Lactuca sativa var. capitata and Lycopersicon esculentum var. Roma) in commercial plantings with and without fertilizers and pesticides, in relation to yield, quality, and pest inhibition. Treated lettuce plants with fertilizer and pesticide applications were more vigorous, exhibited less incidence of soil-borne fungal wilt, and subsequent yield was statistically greater 43% compared to untreated plants. Treated plants with no fertilizer or pesticide applications in the field behaved similarly to untreated plants that received routine fertilizer and pest control inputs. Similarly, fertilizer applied and fertilizer non-applied treated tomato plants exhibited a 25% and 31% increase in total observable yields respectively. Treated tomato and lettuce plants also measured higher in total leaf tissue chlorophyll content. The combination of biofield treatment along with administration of chemical additives demonstrated the best results with statistically increased yields and higher pest resistance in both test cropping systems. The specific mechanisms that lead to these preliminary results have yet to be determined.