Over the next half century, climate change will dramatically affect which food crop varieties reach optimum quality in nearly every foodscape in North America. Farmers’ selection of crop varieties and how they grow them in each microclimate will be radically reworked by declining chill hours, extreme summer temperatures, the changed frequency of tropical storms, and extended droughts. Fresh water scarcity and increasing salinity will also rework what food plants can be grown in many localities as well, not just in already arid areas, but along all coasts. With 2300 counties declared drought disaster areas in the US within the last two years, it is time that horticulturists, gardeners, and farmers in every part of the country look more critically at the diversity of some heirloom vegetables, fruits and grains, as well as new farmer-selected varieties derived from participatory plant breeding in the U.S.

By listening to traditional and innovative farmers on five continents and seeing how they are adapting their diversity of food crops to adaptations, Nabhan offers options to greater reliance on a few so-called climate ready GE crops, each of which costs to 5 million US dollars to develop, market and employ. The farm-based strategies for innovation developed through biomimicry, ecomimicry and etnomimicry will be highlighted.

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