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A COMPARISON OF AGRICULTURAL AND NUTRITIONAL QUALITY OF FOODS ORGANICALLY GROWN IN TURKEY AND IN OTHER COUNTRIES

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The market of organic food is increasing in most European countries and in the world, and it is expected to increase in the future. However, the present market share of organic food in many countries is quite low and the quality changes from product to product. The main barriers for increased organic food production and sale can be defined as: confusion or mistrust in organic standards and labeling systems, high prices and low product quality, poor product availability and visibility. Organic agricultural and food processing practices are wide ranging and overall seek to foster the development of a food production system that is socially, ecologically, and economically sustainable. Over the last few years the organic food industry has been showing the highest levels of growth of all food sectors. A wide range of factors has been investigated in studies comparing organic and conventional food production. Systems, including economics, crop yields, agronomic factors (soil chemical properties, soil physical properties, soil microbiological activity, pest and disease burdens etc.), farm applications, food quality (nutritional value, taste, shelf life), environmental effects, biodiversity, farm nutrient sources, and social trade, and political issues associated with food production. Organically grown foods add many valuable vitamins, macro and micro nutrients to diet and there are also many positive effects on human health. Plant-based organic foods contain complex mixtures of “phyto-chemicals”: bioactive compounds produced by plants. Diets rich in organically grown fruits, vegetables, legumes, whole grains and nuts are associated with a lower risk of many chronic diseases because of these phytochemicals. Phytonutrients with known beneficial (often antioxidant) effects on human health are expected to be higher in organic products for various reasons, including varietal choice, crop maturity and crop protection methods. This has been confirmed for lycopene in tomatoes, polyphenols in potatoes, flavonols in apples and resveratrol in red wine. In some recent studies tentatively estimated, based on the currently available evidence, which organic products will tend to contain %10-50 higher phytonutrients than non-organic products. Animal feeding trials have consistently demonstrated improved health in animal fed organically produced food compared to those fed non-organically produced food. Observed benefits have included significantly improved growth rates, reproductive health, recovery from illness, and general health in those animals fed organically produced feed. While similar controlled studies in humans are difficult, clinical experience and recorded observations have suggested similar benefits in human reproductive health, recovery from illness and general health from the consumption of organically produced food. The purpose of this

review study is to evaluate some researches that set out several agronomical and food quality factors of organically and conventionally grown agricultural foods in Turkey. As a result of the study, it will also be possible to compare these agricultural foods to foods grown in other countries. This review will also reveal the effects of organically grown foods on human health factors.

Key words: Organic Food, phytonutrients, conventional food, nutrition, health