The model of agricultural research in Israel

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Abstract

Israeli agricultural research is a close collaboration among three groups – research scientists, extension specialists, and farmers. Funding for the research comes from four sources, the government, the farmers’ associations, international sources and private industry. Research proposals for local funding from the first two sources, the government and farmers’ associations are reviewed by a committee that includes representatives from all three bodies mentioned above. From the government the funds are given for three years, while from the farmers’ associations the funds are granted yearly with options for renewal. The purpose of the research can be either basic or applied, but must be judged of importance to Israeli agriculture. Often the results of one project will raise questions that can be addressed in further projects. One example of a project that has had far-reaching applications and involved both applied and basic research questions is the development of a hot water brushing treatment. It was originally developed to clean peppers grown on the sandy soil in the Arava valley in southern Israel. However, it was found to be applicable to many other crops and in investigation of the mode of action of this short, high temperature treatment it was found to affect the physiological state of the fruit or vegetable treated. The treatment both physically removed pathogens from the fruit’s surface and increased the resistance of the fruit to pathogen attack. In addition, the treatment induced resistance to chilling injury and decreased ethylene and respiration, thereby, slowing fruit ripening. The machines are currently in use in many places in Israel and on a wide range of fruits and vegetables.

Key words: Israel, research, agriculture, founding, application