

Protected agriculture and its potential role in achieving food and nutritional security in the Caribbean Region

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The global increase in food prices and its impact on food security of nations within the Caribbean have greatly increased the need to identify technologies that can increase food production and productivity to satisfy local demands. Protected agriculture is being viewed as a viable option to achieve this goal. When compared to open field cultivations, protected systems have the potential to produce substantially higher yields at a consistent quality on small areas of land. In addition, when the “best practices” are adopted there is the efficient use of water and other inputs. Moreover, the technology has the potential to attract young entrepreneurs into the agricultural sector, create employment in rural communities and provide downstream

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benefits such as the development and/or expansion of small rural enterprises. Currently, most islands within the Region have adopted protected agriculture as a means to increase the availability of vegetable crops. Despite the potential of the technology and the wide scale adoption, many growers have been unable to sustain and/or optimize yields and maintain profitable enterprises. These observations are largely rooted in the use of inappropriate structures for the climatic conditions of the Region, pest outbreaks, the inadequate knowledge and skill of producers and limited industry support systems and services. With emphasis on Dominica, Jamaica and the Republic of Trinidad and Tobago, the paper discusses these challenges, highlights various production and marketing initiatives as well as research and development innovations that can contribute to the attainment of national goals of food and nutritional security.

Key phrases: food and nutritional security, protected agriculture, vegetable production systems