Abstract
An increasing demand for organic vegetables is a great opportunity and a challenge for organic vegetable growers and also for researchers to develop new studies. Our challenge to develop research in ecological system has dual valence: (1) ecological systems has the potential to support biodiversity conservation through (increased number and variety of cultivated wild species, maintaining soil healthy and soil fauna, reducing the risk of water pollution) (2) use of the products obtained in organic farming is able to ensure safety food. The study was conducted on a diverse tomatoes collection cultivated in protected area in ecological culture system. We select different local populations known for high level of quality and also for resistance to pathogen attach. Our purpose is to provide healthy food for consumers and also to select the best forms for introduction in breeding programs. This research paper presents some results regarding type of growth, production potential (t/ha), precocity, plant resistance to pathogens, some fruit characteristics like: shape, color, weigh, lodge number, firmness, storage and split resistance.

Key words: Biodiversity, biological culture system.