



STRONG POINTS AND RISKS FACTORS IN GREENHOUSE ORGANIC CULTIVATION OF SOME VEGETABLE SPECIES

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INTRODUCTION AND AIM

The success of organic farming under cover depends on the identification of risks threatening to various species of plants. It is important to determine them for specific growing conditions.

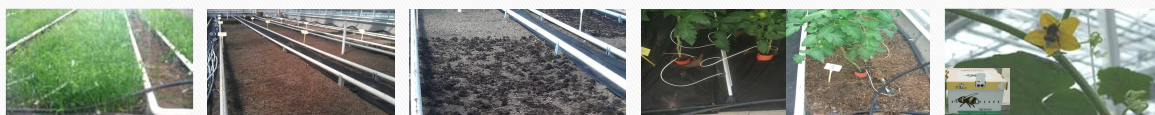
The next step is to enhance the efficiency of crops by adjusting the strategy of fertilization and irrigation, activation of the climate and the choice of process to protect against pathogens.

The aim of experiments was to identify opportunities of organic cultivation of various vegetable species



MATERIAL METHODS

- » The main crops (tomato, cucumber, bell pepper, green bean, lettuce , radish) were conducted in high glasshouse with controlled climate, in accordance with the principles of plant demands and rules of organic production.



- » Soil was fertilized with fertilizers permitted to organic farming in Poland.
- » Allowed crop protection products (entomophagies and plant extracts eg. from nettle or comfrey) were used.
- » Alternative crops (achocha, cowpea, okra and sweet potato) were carried out in conventional plastic tunnel, without chemical protection
- » The volume and quality of the yield as well as the vigor and plant health condition was evaluated.



RESULTS

An alternative species & extension of assortment of vegetables for organic farming



achocha (cajuga)
Cyclanthera pedata
vs cucumber

cowpea
Vigna unguiculata
vs green bean

sweet potato
Ipomea batatas

okra
Abelmoschus
esculentus

CONCLUSION

- » Tomato and cucumber needs to nutrition refinement already from 12th week of cultivation
- » Mastering aphid population on green beans and bell pepper was the most difficult challenge – it can eliminate these species from OGH in Poland
- » The success of lettuce cultivation depended on the cultivar, but otherwise there were no significant problems of the size and quality of the yield.
- » The best results were obtained in radish cultivation.
- » The simplest cultivation proved to be a produce of radish.
- » Achocha may be some alternative to cucumber and cowpea for green beans due to the similar taste, abundant yield and the absence of pathogens
- » Okra and sweet potato are worthy of attention as species useful to OGH, due to good taste, yield and healthiness. ➤

