

Abstract:

The decision support system for economic analysis, including system for fertilization recommendation, could be useful tool more sensitive to soil fertility and fertilization investment level. This computer program was created according to results of economic analysis of field vegetable production in eastern Croatia and results of several field vegetables fertilization experiments. Computer model has main window with all input data forms, status window with current data, recommendation and economic analyses report windows. There are two possibilities after selection of vegetable species (cabbage, Savoy cabbage, cauliflower, pepper, tomato, cucumber, carrot, parsley): predicting or analytical option. Analytical option doesn't include fertilizer recommendation and user must input all applied fertilizers. Predicting option includes fertilizer recommendation based on soil analyses results (pH, humus content, phosphorus, potassium, Nmin). The major part of the program is simplified economic analyses of field vegetable production including calculation of income, variable costs, fixed costs and break even points. The structure of costs is made according to analyses of field vegetable production on family farms and the same analyses are the basis for costs amount. The real costs are integrated in the program as a help for user who doesn't have adequate costs data (mostly for predicting of production profitability). Also, all the amounts, prices or even costs structure or type of variable changes are allowed. Thus, it's very simple to compare specific production conditions with default model concepts, or to analyze economic importance of site specific soil fertility, production investments, prices or any other factor. The program testing with different soil fertility and yield level shows that model is sensitive to input data changes. The model is suitable as a tool for predicting or analyzing production profitability, depending on soil fertility, achieved yield or investment level.