

Inovatyvus integruotos augalų apsaugos informavimo, konsultavimo ir mokymų skaitmeninis įrankis

1. Keywords: Plant protection, Plant diseases, Plant pests, Weeds, Agrometeorological station, Insect trap, ICHO, Fertilizer spreadsheet, E-learning, Disease forecast, Pest forecast, Precipitation index, Yield spreadsheet, Seed rate, Manure spreadsheet

2. Area: , System of Integrated plant protection information, consulting and training

3. Subarea: Integrated protection of field, garden and orchard plants

4. Theme: An innovative digital tool for integrated plant protection information, consulting and training

5. Year: 2020

6. Summary: The timeliness of information on the spread of diseases or pests in various agricultural crops is important in order to produce more and healthier products with as few plant protection products as possible. Farmers are encouraged to use information systems such as IKMIS, which not only provide information on pest or disease threats and their catalogues for identification, but also provide advice on which protection products to choose.

7. More detailed version of the summary: IKMIS is a system of integrated plant protection information, consulting and training consisting of 4 free electronic services for farmers, advisers, scientists and anyone interested in agriculture. The aim of this system is to create conditions for Lithuanian agricultural sector entities to monitor plant diseases and pests more efficiently and at lower cost, to improve their qualifications and make optimal decisions on the use of plant protection products, thus reducing the negative impact on the environment (lower use of plant protection products), health of Lithuanian people and animals. Data from insect traps, online meteorological stations and weather forecasts are integrated and automatically submitted to the system. According to the received data, recommendations are given when fields should not be sprayed, operative information on the spread of harmful organisms in various agricultural crops in all regions of Lithuania is provided, as well as timely interactive consultations. During the growing season, the farmers' crops are monitored, plant records are taken according to the methodology prepared by researchers, and the data and recommendations are provided by the plant production advisers of the Advisory Service. In order to ensure the quality of recommendations, drones, satellite data and nitrogen demand measuring devices are used to determine the condition of crop health. By monitoring his/her crop and suspecting that a disease or pest is spreading in it, but failing to identify the pest or disease, the user can find all the information relevant to him in the system. IKMIS publishes catalogues of diseases, pests and weeds, which help to identify a disease or pest faster and make it easier to select plant protection products registered in Lithuania that destroy them. The catalogues are regularly updated by the researchers of the Lithuanian Research Centre for Agriculture and Forestry, and the information in the database of plant protection products is obtained directly from the database of the State Plant Service. Farms using plant protection products must comply with the requirements of Integrated Pest Management. By filling in the questionnaire in the system, each user finds out whether the farm complies with them. If not, information on the areas of the farm to be improved is provided. If advice on the application of integrated pest management is required, an adviser can be contacted via the IKMIS system. Another important IKMIS service is training. Farmers have to improve their qualifications constantly and gain knowledge in various courses, trainings and seminars, which are not always organized in their area, thus they have to go to other locations. Using the IKMIS distance learning service, which consists of more than 15 training programs, farmers will be able to learn at home, in the most convenient way and time. This way they can save their precious time and money. Most importantly, almost all (except distance learning) IKMIS services are free.

8. Effect: Agro-environmental protection, Economical, Sustainable Farming, People's health

9. Argumentation: It is fast, impartial, objective and operative information that helps to make the right crop management decisions, thus conserving nature, ensuring efficient use of farm resources, saving time, and increasing farm productivity.

10. Project description: -

11. Contacts: Ilma Rimkevičienė +37061408346 ilma.rimkeviciene@lzukt.lt

12. URL: -

13. Images:

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14. YouTube: <https://www.youtube.com/watch?v=jUsF4a7HxFo&t=15s>

15. Documents: -