TESTING THE TECHNICAL STATUS OF SPRAYING MACHINES TO REDUCE ENVIRONMENTAL POLLUTION

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SUMMARY

The sprayers for agrochemical applications, which are working in Romanian agriculture, should be today improved for increasing the efficiency of the treatment with minimum chemical substances consume and low environmental pollution together with a high safety for users.

On the world scale there are available at this moment high tech, performing machines, which are using artificial intelligence for adjusting different functional parameters. In Romania some manufacturers of these machines tries to develop, with low investments, machines that have the quality-price ratio as good as possible for our farmers.

It’s necessary to increase the technical performances of the sprayers because at a European level exists some norms, which must be accomplished by these machines. Starting from this point of view, in this paper we intent to research the possibilities to increase the performance of sprayers regarding the reduction of environment pollution, to assure the users safety and to comply the requirements of European norms.

The checking of different parameters of sprayer machines is made using suitable equipment and test stands. The results of the tests will be written on a checking and diagnose card which give us information about what parts of sprayer machines are good, are bad or must repaired or replaced to increase the efficiency of the treatment and reduce environmental pollution. The parts of sprayer machines which must be test are: the tank liquid level indicator, the filters, the boom, the pressure gauge and the setting system.

The checking and diagnose card will give us informations about the technical status of spraying machines, so we will be able to setting up the machines to increase the technical performances.

In conclusion, the spraying machines checking and diagnose ensure the spraying efficiently and environmental protection. To achieve this goal, it is necessary to use adequate equipment and stands for a quick and precisely diagnose.