

Feasibility of using mycoherbicides to control illicit drug crops is uncertain

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The effectiveness of using specific fungi as mycoherbicides to combat illicit drug crops remains questionable due to the lack of quality, in-depth research, says a new report from the National Research Council.

Questions about the degree of control that could be achieved with such mycoherbicides, as well as uncertainties about their potential effects on nontarget plants, microorganisms, animals, humans, and the environment must be addressed before considering deployment. The report states that additional research is needed to assess the safety and effectiveness of proposed strains of mycoherbicides.

Mycoherbicides, created from plant [pathogenic fungi](#), have been proposed as one tool to eradicate illicit drug crops. Congress requested an independent examination of the scientific issues associated with the feasibility of developing and implementing naturally occurring strains of these fungi to control the illicit cultivation of cannabis, coca, and [opium poppy](#) crops.

As an initial step, the report recommends research to study several candidate strains of each fungus in order to identify the most efficacious under a broad array of [environmental conditions](#). The resulting information would guide decisions regarding product formulation, the appropriate [delivery method](#), and the scale required to generate enough mycoherbicide product to achieve significant control. However, conducting the research does not guarantee that a feasible mycoherbicide product will result. Furthermore, countermeasures can be developed

against mycoherbicides, and there are unavoidable risks from releasing substantial numbers of [living organisms](#) into an ecosystem.

Multiple regulatory requirements would also have to be met before a mycoherbicide could be deployed. Additional regulations and agreements might also be needed before these tools could be used internationally, as approval to conduct tests in countries where mycoherbicides might be used has been difficult or impossible to obtain in the past.

Provided by National Academy of Sciences

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