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Synthesis of some organophosphorus Phytoregulators used in vegetable growing. I. Esters of 2-(dimethylsulfonium)ethyl-Phosphonic acid

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For the synthesis of the esters of 2-(dimethylsulfonium)ethylphosphonic acid sCl-(CH3)2S+CH2CH2P(O)(OR)2t, dimethylsulphide was reacted with esters of the 2-chloroethylphosphonic acid. These esters were obtained through the complex of AlCl3, PCl3 and 1,2-dichloroethane; this complex was reacted with different alcohols to give 2-chloroethylphosphonic acid esters. The plant growth regulating activity of the obtained sulfonium compounds was tested. In ripening tomatoes, increasing of the quantity of ripe fruits up to 25% over untreated control was obtained. In cucumber plants, increasing of the portion of female flowers (fruit bearing) up to 36% over untreated control was obtained.