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# Monitoring of ambient precipitation chemical content in steppe Crimea (Ukraine) and effect of their acid components on fruit plants

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Acid precipitation (AP) is one of ways of air pollution by products of burning and harmful technogenic emissions. The pollution may be carried on the large distances from a source and cause damages of fruit plants in agricultural areas. Non specific symptoms of damage and delay in display of chronic toxic dozes influence do not allow with a high share of probability to estimate a degree of AP influence. Monitoring of atmospheric precipitation content and simultaneously a reaction of fruit plant is necessary. The first part of monitoring is carried out by the tax and of the chemical analysis of precipitation content every decade with definition pH and ions $SO_4^{2-}$, $NO_3^-$, $NH4^+$, $Cl^-$, $Na^+$ and $K^+$ during all year; in industrial areas and on various distances from a source of issue, in agricultural ones in view of a direction and speed of primary winds near land surface layer of air and on various heights. The second part of monitoring includes supervision over plants after long term rains with pH = 4 and below, estimation of sharp damages blossoms, ovaries, fruits, leaves by visual, biometric and chemical methods. Revealing of chronic damages will carry out by rating of leaf antioxidant system activity. For a rating of plant productivity must be determined the influence of AP on viability of pollen, infructescense degree, fruits quantity and their chemical properties etc. Using received monitoring data is possible to predict content of precipitation and acidity degree, to determine threshold sizes of acidity and chemical impurity in precipitation for concrete fruit crops, degree of their genus, varieties and forms stability and their rational placement in researched area. Thus, it is necessary to carry out parallel monitoring behind structure of air and status of plants for a rating of their stability to pollution. Such monitoring allows also using a number of physiology-biochemical parameters of plant for purposes of phytoindication.