

Retrospective Analysis of the Damage of Agricultural Crops from Hail in Eastern Georgia

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Abstract : Georgia is one of the hail-dangerous countries of world. The work on action on hail processes in Georgia was conducted in 1960-1989 (East Georgia) over the total area of approximately 1.2 million hectares with average positive economic effect near 75 %. In 2015 in East Georgia, the anti-hail service was restored. Therefore, for the estimation of the effectiveness of action on the hail processes at present, arose the need for the detailed analysis of damage from the hail in the past. The work presents the analysis of the data about the number of days with the hail, the areas of damage of agricultural crops (general and to 100 %), and also the economic damage from the hail, of the caused loss to agricultural crops on the territories land of 123 separate populated areas of into 1982 and 1984-1989. In particular, on the average to one populated area, the total area of agricultural crops damaged from the hail was approximately 140 hectares, to 100% damage - 60 hectares, economic damage - 120 thousand US dollars. The corresponding maps of the distribution of the damaged areas on the investigated territory with the use of GIS-technologies are obtained.

Keywords : damage to agricultural crops, hail, Georgia, economic damage

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