HYDROMETEOROLOGICAL CENTER OF RUSSIA

SOCIO-ECONOMIC BENEFITS OF
METEOROLOGICAL AND HYDROLOGICAL SERVICES

INVENTORY OF DECISION SUPPORT TOOLS

ITEM	METHOD DESCRIPTION
Sector	Agriculture
Sub-sector	Plant cultivation. Locating of areas with different condition of winter crops after wintering.
Tool Name	Agrometeorological forecast of the winter crops condition in spring.
Tool Description	The forecast of the areas with the loss of winter crops in spring on the basis of the improved conceptual model of wintering accounting for the thermal regime and for the soil moistening.
Weather, Climate or Water inputs	Climatic and agrometeorological data of the autumn and winter periods: soil moistening, air and soil temperature, height of snow cover, depth of the soil freezing.
Specific weather, climate, water data required	The specific weather and climate data required for the method in question (Agrometeorological information received every decade* from hydrometeorological stations using the code KH-21).
Spatial resolution	Space distribution of the hydrometeorological stations observational data necessary for the above method over the territory of the constituent entities (Subjects) of the Russian Federation.
Temporal resolution	Agrometeorological data by decades for autumn-winter period
Delivery methodology	Physico-mathematical model of E.G.Palagin and V.A.MoÏseichik (1978 - 1988)
Frequency of data requirement	Every decade and every month during the autumn and the winter periods.
Other	The data on the condition of winter crops after their vegetation period termination in autumn
Detailed Tool Description	Taking into account agrometeorological conditions in the autumn period and the first half of winter, as well as the conditions expected till the end of the plants wintering, the expectations as to the areas with different condition of winter crops to be formed by the time of the vegetation renewal are calculated in the model in the automated mode over the Subjects of the Russian Federation and over the territory of Russia as a whole.
Spatial resolution	Subjects of the Russian Federation in the agricultural zone.
Temporal resolution	Every month within the period autumn - winter

Delivery methodology	Consolidated prognostic information on the state of winter crops in spring over the constituent entities (Subjects) of the Russian Federation, Federal regions and for Russia as a whole.
Frequency of provision	Within the period of the winter crops wintering (in the 3rd decade of February and the 3rd decade of March)
Others	Extra issues of forecasts in dangerous periods of wintering.
Benefits of tool application	The data of the forecasts of the winter crops wintering are used by the executive boards of the agroindustrial complex and by economic entities for the timely provision of seeds aimed at resowing the damaged winter crops, timely fueling, as well as for adjusting the plans for the spring sowing campaign.
Possible future advances	The possibility to further develop the model of the winter crops wintering taking into account the specific features of the climatic conditions change in the winter period in different regions of the Russian Federation. This enables to raise the crops bulk yield production sustainability.
Comments	
URL	
Others	

* decade – 10 days