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**NOTE**

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From: General Secretariat of the Council  
To: Council

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Subject: Consequences of drought in Poland and Romania  
- Request from the Polish and Romanian delegations

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Delegations will find attached an information note received from the Polish and Romanian delegations on the above mentioned subject to be dealt with under "Any other business" at the meeting of the Council (Agriculture and Fisheries) on 7 September 2015.

**Poland and Romania request concerning the discussion (under AOB items) during  
the EU Agriculture and Fisheries Council on 7 September 2015  
of the consequences of drought**

In some EU Members States drought is a frequent occurrence, yet this year's drought that took place during the summer vegetation season, is particularly severe. For instance, in Poland the drought covered almost the entire territory of the country, with the highest intensity registered in the central, eastern and south-western parts. Farmers in our Member States had to deal with meteorological and agricultural drought, which in extreme cases may lead even to the total loss of the crops.

In Poland it is estimated that compared with the 2012-2014 average, agricultural farms will experience a drop in the production value by 5%, an increase of costs by 4%, and as a result, a drop in the income of a family agricultural households by 25%, compared with 2014.

Drought occurred for 14 groups and species of plants: spring crops, winter crops, fruit bushes, strawberries, legumes, rape and turnip rape, field vegetables, tobacco, potatoes, hop, fruit trees, sugar beets, corn cultivated for silage, and corn cultivated for grain. In many areas, sowing stubble catch crops in the current situation cannot be justified for agrotechnical reasons.

Crop losses as regards hay reach 45 % in western and central Poland as well as in the north-eastern area, on medium meadow soils. The situation is dramatic on weak mineral and marshy soils, where the estimated losses reached up to 70-80% in central Poland.

In Romania, drought started in April and culminated in July – August, with temperatures averaging 35 - 40°C. The total affected area is around 2 Million hectares.

The most affected crops being spring crops and pastures. The estimated losses range between 40% and 100% and add up to the already existing market difficulties and makes it impossible for a lot of farmers to find the necessary financial resources for setting up the new crops.

As a result, the animal sector is also affected (determining already a reduction by 7 – 8% of the animal number), due to the problems related to the fodder.

The consequences of this year's drought may be reversible only in the case of multi-annual plants. For annual plants like corn, legumes or potatoes, improvement of the weather conditions at the turn of August and September will not bring any major improvements in the breeding status of those crops.

The consequences of the drought are particularly visible in the fodder management sector. The decreased yield of forage on arable land, lack of regrowth of permanent pastures, decrease of side products used as fodder, result in reduced resources, in particular as regards roughage, including silage, hay-silage and hay. Also, the drying out of the Faboideae plants, grass and their mixtures sown in the crops will limit the extent of the fodder production over the entire vegetation season in 2016.

As regards milk, insufficient amount of rainfall and prolonging drought mostly in the north-eastern, south-eastern and central voivodships of Poland, will cause a drop in the amount of in-farm fodder available, in particular silage, hay-silage and hay. The numbers of cows bred for milk may drop by 3% in the second half of 2015 and by 2% in 2016, in particular if the downward trend in the prices of milk and milk production as a consequence of heat stress continues.

Drought makes it difficult to perform post-harvest activities or forces farmers to refrain from performing them, which in turn might lead to a lower yield next year. Significant shortages of soil water prevent both soil cultivation as well as sowing. The majority of rape sown in the regions affected by drought will be moved to later date, which forces the farmers to use more seeds by approx. 10-15% (higher costs). The delayed rape sowing combined with short and cool autumn season may lead to significant losses in the next year's crops.

**In order to prevent dramatic decreases in agricultural production, in particular cattle, it is legitimate for the European Commission to undertake measures aimed at preparing and implementing an extraordinary support programme for this type of production.**

## **Information on the consequences of drought in Poland.**

In the Polish climatic conditions, drought is a frequent occurrence, yet this year's drought that took place during the summer vegetation season, is particularly severe. The drought covered almost the entire territory of the country, with the highest intensity registered in the central, eastern and south-western parts of Poland. We are dealing with **meteorological and agricultural drought**, which in extreme cases may lead to the total loss of the crops.

In line with the Act on insuring agricultural crops and farm animals (Polish Journal of Laws Dz. U. 2015. 577 as amended), drought is defined as losses caused by the occurrence in any 60-day period between 1 April and 30 September of the climate water balance falling below the levels set for individual species of cultivated plants and for soils.

**The water deficit measured using the climate water balance (KBW)** for the period between 21 June and 20 August 2015 range between -130 and -249 mm in Poland, whereas the multi-annual average is -70 mm. The water deficit in this year is thus by approx. 270% higher than the multi-annual average.

### *Consequences for plant production*

According to the Institute of Soil Science and Plant Cultivation (IUNG), in 2015 drought occurred for **14 groups and species of plants**: spring crops, winter crops, fruit bushes, strawberries, legumes, rape and turnip rape, field vegetables, tobacco, potatoes, hop, fruit trees, sugar beets, corn cultivated for silage, and corn cultivated for grain. In many areas, sowing **stubble catch crops** in the current situation cannot be justified for agrotechnical reasons.

The consequences of the current drought **are reversible for multi-annual plants**, yet for annual plants like corn, legumes or potatoes, improvement of the weather conditions at the turn of August and September will not bring any major improvements in the status of those crops.

According to IUNG, national yield for many crops in 2015 will be much lower than in 2014.

Drought makes it difficult to perform post-harvest activities or forces farmers to refrain from performing them, which in turn might lead to a lower yield next year. Significant shortages of soil water prevent both soil cultivation as well as sowing, in particular in central Poland. The majority of rape sown in the regions affected by drought will be moved to later date, which forces the farmers to use more seeds by approx. 10-15% (higher costs). The delayed rape sowing combined with short and cool autumn season may lead to significant losses in the next year's crops.

In Poland, a large part of the **sowing material** comes from farmers' own reproduction. It is certain that the sowing material grown during a drought will have a lowered weight of 1000 grains; there is also the risk that such sowing material will exhibit a lower germination energy. Therefore, if a given farm affected by drought does not buy sowing material from a third party, the poor quality of the sowing material might constitute an important factor that will lower the yield in the following season.

### *Consequences for animal production*

According to the Institute of Technology and Life Sciences, the consequences of the drought are particularly visible **in the fodder management sector**. The decreased yield of forage on arable land, lack of regrowth of permanent pastures, decrease of side products used as fodder, result in reduced resources, in particular as regards roughage. Also, the drying out of the Faboideae plants, grass and their mixtures sown in the crops will limit the extent of the fodder production over the entire vegetation season in 2016.

The meteorological and agricultural drought that started in June and increased in intensity in July, caused **hay yield losses** up to 45 % of the second windrow in the western and central parts of Poland and in the north-eastern region on medium meadow soils. The situation is dramatic on weak mineral and marshy soils, where the estimated losses reached up to 70-80% in central Poland. If the drought continues, as the long-term forecasts suggest, there will be no third windrow hay this year. **The fodder value of hay** is small, in particular in the second windrow (approx. 50% lower than usually).

According to IUNG, the production capacity of **roughage from stubble catch crops** in the case of late sowing (third decade of August and later) is very limited, even if the humidity improved significantly.

The drought will also have an impact on **the next year's fodder plants yield**. It will result in the necessity to increase the area of cultivation of plants that do better in the conditions of water shortages (with lower yield per 1 ha) at the cost of decreasing the cultivation of commercial plants, such as: crops, rape, sugar beet.

The regions that are most affected by the drought exhibit a concentration of animal production. In voivodships: Mazowieckie, Podlaskie, Wielkopolskie, Łódzkie and Lubelskie, the vast majority of **milk cattle** is kept: 21.4, 18.5, 12.1, 7.7 and 62%, respectively. In the Wielkopolskie Voivodship, where the climate water balance (KBW) ranged from -150 to -180 mm at the turn of July and August, also has 35.3% of **pigs**.

As regards **milk**, insufficient amount of rainfall and prolonging drought mostly in the north-eastern, south-eastern and central voivodships, will cause a drop in the amount of in-farm fodder available, in particular silage, hay-silage and hay. Therefore, attention must be paid to increased rate of shortage of cows bred for milk in H2, in particular if the downward tendency of milk prices continues. **The number of cows bred for milk** may decrease by 3% in H2 2015 and by 2% in 2016.

Also, the profitability of cattle breeding will depend on the prices of **cattle** fodder. The decreased resources of roughage might cause an increase in the prices, thus lowering profitability, leading to lowering of the numbers of the remaining cattle. As a result, in December 2015 the number of cattle may lower by approx. 1% and reach approx. 5,600 thousand animals.

**There is a risk of lowering** the profitability of **pig breeding** if the prices of crops increase after the harvest. A potential drop in the number of pigs will depend on the scale of price increase of crops and fodder. The consequences of the increasing prices will largely be felt next year.

As a result of heat stress, milk production will decrease by approx. 2 litres per animal per day, which corresponds to approx. 200 million litres. For **pigs**, high temperatures mostly mean lowering the efficacy of insemination by approx. 10% (translating into a lower number of piglets) and lengthening the fattening period, thus increasing the consumption of fodder during fattening at approx. 6 kg per 1 animal (at different stages of growth).

### *Simulation of the income changes in agriculture*

Based on the assumptions made as regards the changes in the volume of production and the prices, it is estimated that compared with the 2012-2014 average, agricultural farms in Poland will experience a **drop in the production value by 5%, an increase of costs by 4%**, and as a result, a **drop in the income of a family agricultural households by 25%, compared with 2014.**

**In order to prevent dramatic decreases of animal production, in particular cattle, it is justified for the European Commission to undertake measures aimed at preparing and implementing an extraordinary support programme for this type of production in Poland.**

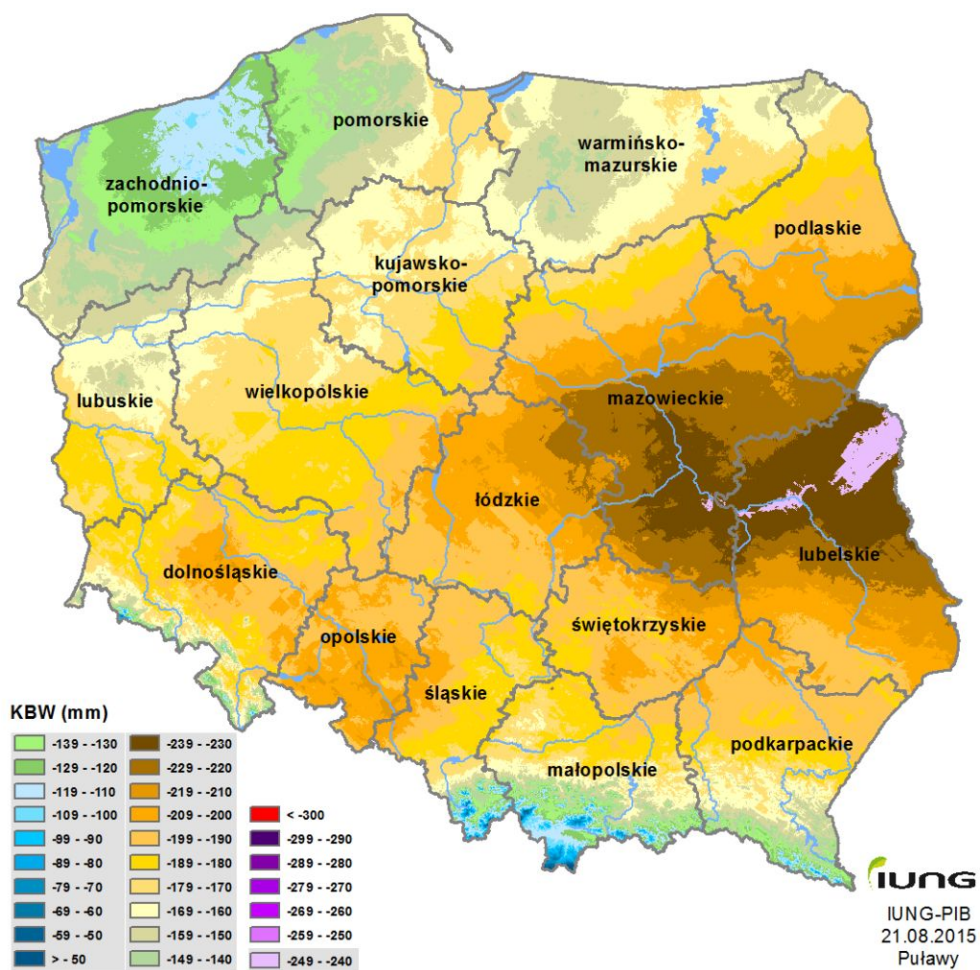
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**Potential number of municipalities\* at risk of drought depending on the type of plants that may be cultivated there and the share of the municipalities at risk of drought in Poland (in %) in 2015.**

No.	Crops	Number of municipalities at risk of drought	Share of municipalities at risk of drought in Poland [in %]
1	Legumes	2952	96.3
2	Potatoes	2697	88
3	Fruit bushes	2697	88
4	Hop	1578	51.5
5	Tobacco	1091	35.6
6	Field vegetables	1090	35.6
7	Corn for silage	1087	35.5
8	Spring crops	1014	33.1
9	Sugar beet	659	21.5
10	Fruit trees	651	21.2
11	Winter crops	546	17.8
12	Strawberries	521	17
13	Corn for grains	203	6.6
14	Rape and turnip rape	111	3.6

*\*the term municipality covers all urban municipalities, rural municipalities, as well as, separately, towns in urban-rural municipalities as well as rural areas in urban-rural municipalities.*

**Climate water balance for 21 June – 20 August 2015**





Map of the precipitation forecast by the end of August 2015

