

Corn – a great challenge for the professionalism of the Bulgarian farmer

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Corn production in our country, unlike its production in neighboring countries - Romania and Serbia, which are among the top in Europe in terms of area and yield, is very modest in terms of vision, scale, and results. In practice, only one direction remains - grain corn on non-irrigated land. In the southern half of the country, this crop is more of a botanical concept than a real existing reality, and more precisely - a vanishing plant species!

What is the problem with corn production in our country? Obviously, there is a pebble in our shoe that is causing discomfort... Before I answer, let's recall what technological support we have for this production.

First: Bulgarian breeding, carried out at the Maize Research Institute in Kneja, which last year celebrated its 90th anniversary, now has a negligibly small market share. A large part of production is based on foreign breeding. The color of world genetics is here – "Pioneer", "Syngenta", "Monsanto", KWS, "Euralis"... Respected brands with innovative product portfolios from all FAO groups. The hybrids of these seed mega-companies have high yield potential, are adapted, and fit well with our terroir (combination of geographical location, climate, and soil).

Second: Plant protection for corn is focused mainly on weed control, for the simple reason that diseases and pests are still peripheral, not economically "interesting". The global agrochemical industry, represented here by the leading multinational companies "Bayer CropScience", BASF, "Syngenta", and "DuPont", offers its super-powerful, super-innovative, super-intensive product and technological resources here. This is top-class plant protection! Which is capable of dealing with any format of invasion and any composition of weed vegetation.

Third: Balanced nutrition with macro- and microelements is a key factor for achieving maximum results in corn production. In recent years, many foliar fertilizers have appeared on the domestic market – of various contents, formulations, and activities, which complement soil fertilization, correct various deficiencies, and make up for missed benefits.

A unique foliar fertilizer and soil improver is Amalgerol, offered here by the company "Heminova". It is a natural product containing seaweed extract, distilled paraffin oil, vegetable oils, and herbal extracts. Amalgerol accelerates the growth of corn, including the root system (an exceptional indicator, especially for this crop), increases plant resistance to drought, and helps overcome the negatives of drought.

Another example in the direction of possibilities for overcoming stress situations caused by abiotic factors is the fungicide Retengo from BASF's AgCelence concept. The active substance - the strobilurin pyraclostrobin, the latest development of the German agrochemical company, protects corn from diseases while improving physiological condition and stress resistance. The physiological action of Retengo suppresses the formation of ethylene, the hormone that under stress is synthesized in higher quantities and leads to premature ripening. In its role as a fungicide, it controls leaf blight and rust.

The big question today is: With the availability of this super-creative product arsenal – hybrids, plant protection products, soil and foliar fertilizers, regulators, and improvers, is there a chance for corn to be returned to Bulgarian fields? I mean at least to 5 million decares (as the areas were in the past), with 1 million decares being in Southern Bulgaria?

Without a doubt, the question is of increased difficulty. Even for the most optimistically inclined analysts and commentators on this highly sensitive topic. Because many of the knowledgeable and informed people in our country actively practice in this direction, but their efforts have not contributed much to any change in thinking and actions.

Corn is a central theme in this issue of the magazine "Plant Protection". We have invited our committed partners to participate – popular and well-known scientists, who kindly provide readers with their recommendations on key technological issues – fertilization, agrotechnics, plant protection. With the confidence and attitude that if these factors work in the field, they would greatly contribute to the growth and stabilization of corn production.

For many years now, corn has been an object of speculation, neglect, and underestimation. As a result of strong pressure, a very resilient mythologeme was born, weaned, and raised – this crop in our country cannot be grown successfully without irrigation, and its presence in Southern Bulgaria under this condition is completely unacceptable!

In this case, I have no intention to discuss, let alone evaluate these claims, which over time have become routine ossification. I will only allow myself to quote those specialists whose opinion differs from what was just said. In short, it is as follows. Corn is a very profitable crop! At the same time, there is an imbalance in our country between the high status of the product portfolio and the way it is used. The investment process is flawed, a large financial capital is thrown to the wind, the results are far from the possibilities and do not create added value. This, as you can guess, is discouraging, so no wonder that the aforementioned mythologeme found fertile ground and flourished, that in Bulgaria there are no suitable conditions for growing corn without irrigation.

The truth is that there is no system for sustainable growth of corn production in an uncertain climatic situation. The reproduction of defects continues and this is definitely an obstacle to breaking with outdated fables and moving forward. In two words – the product mechanism is blocked and does not contribute to increasing intensification, which would predetermine the successful coping with the inconveniences created by abiotic factors – drought, rain, high and low temperatures... Production is chaotic, based on purely opportunistic grounds, far from any professional competence, foresight, entrepreneurship, and vision.

More than clear is that there is a deficit of agronomic literacy. So how can a turnaround and progress be achieved? In a production, like corn production, exceptional precision, a very high degree of knowledge, and technological discipline are required.

In other words: the pebble in the shoe that bothers us is not the uncertain climatic environment at all!