

Genetic instability in vegetative propagation of gladioli

This post should remind us that we are not working with gladioli correctly, namely almost all growers are guilty of degrading the quality of individual varieties. Sorry if this does not directly concern you.

I will start with the words of a poor friend who, from his own observation - even if he could not find an explanation, often said: " Peter, you will only see a new hybrid bloom in full glory once or twice, i.e. size, color, healthiness.. in the following years, the quality of the new variety gradually decreases". We did not look for and therefore did not find an answer why.

Today we know more about the degradation of varieties and just a few sentences about it. It is an interesting coincidence that when I wanted to describe this topic, a post came up that I asked Mr. Andrei Baranov - a world leader in gladioli breeding and a recognized expert.

Mr. A. Baranov sees it this way and he is right:

"I observe the selected hybrid during 5-7 years of flowering. Why?. First, despite vegetative propagation, it was found that in the first 2-4 years (due to genetic instability) many characteristics of the hybrid (number of buds, height, etc.) change significantly. In the second year of flowering we often have 26-28 buds, but by the fifth year of flowering only 22-24 buds remain. Other characteristics are more difficult to control". So much from the point of view of A. Baranov.

Conclusion: Vegetative propagation of gladioli through planting cormels does not guarantee the genetic stability of the given variety!!.

Well, apparently nothing new under the sun, but my experience is that practically from individuals, small companies to giants in the production of gladioli, they deal with positive selection only minimally or not at all.

The answer to this is simple but in practice quite difficult. Namely, we have nothing left but positive selection. It should be implemented from the first planting of a one-year-old flower-capable tuber from a new variety. So for example: from thirty pieces of the first-flowering Emily variety, mark 1-3 individuals (preferably with a colored ribbon) that best match the first flower from the first original tuber from the cross or even surpass it in quality, which is a frequent case. Here are two examples from practice. The "Thália" variety is very interesting in color, but during the first flowering I noticed that some flowers deviate to the sides. In the second year of flowering from cormels - i.e. one-year-old tubers, I noticed two flower spikes in which the flowers were arranged in a regular double row without deviation to the sides. I only took cut from marked individuals and so far I have maintained the variety in good quality. So let's not plant all the cormels from a given variety. Sometimes less is more.

Another example is the beautiful variety Smutný Akant from my colleague P. Mimránek. Originally, the strong cleft of the flowers significantly handicapped it. Today, it can be seen at exhibitions without this problem, but among growers there are still individuals with a large, unsightly central gap between the flowers.

I have been trying to do selection for several years, at least on the highest quality varieties, but I don't have the time and physical strength!.

If we don't select the highest quality individuals within a given variety, over the years we will devalue our originally beautiful collection of gladioli!.

