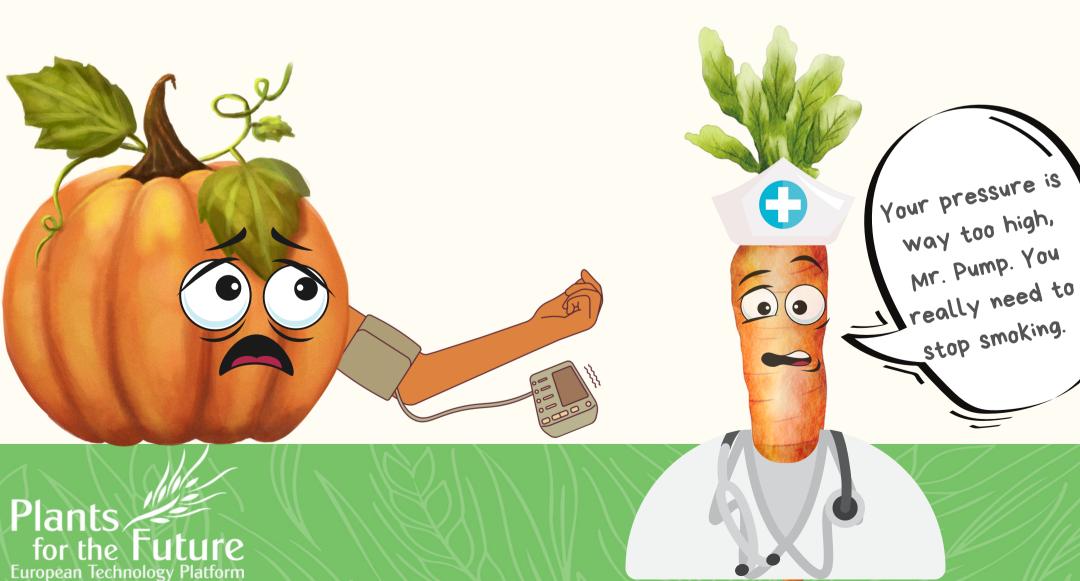
Are plants also

under pressure?



Yes! Plants are under pressure also known as selection pressure.

Selection pressure refers to environmental factors that favor the survival and reproduction of specific traits or characteristics within a plant population.

For instance, the pressure put on plants can be **competition for resources, predation and diseases.** This tree is Winning the sunlight resource battle!



This tree is Winning the water resource battle!



Selective pressures are a key driver of natural selection, leading to the adaptation and evolution of plant species over time. Various selective pressures can shape the traits of plants in response to their environment.

> This tree has a better chance at survival since it has a stronger root system. Natural selection favours this tree.

> > After many many generations, natural selection can lead trees to evolve and have a stronger root system.

Human activities can also influence selection pressure in natural populations.

Anthropogenic factors, such as habitat destruction and pollution, can introduce new selective pressures that impact the survival and reproduction of species.



In contrast, artificial selection, as applied in plant breeding, involves **intentional choices to shape the genetic composition** of populations for specific goals.

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Both natural and artificial selection contribute to the ongoing process of evolution, leading to **the diversity of life in natural ecosystems and cultivated crops**.



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Xie, Songbo and Liu, Min. "Survival mechanisms to selective pressures and implications" Open Life Sciences, vol. 13, no. 1, 2018, pp. 340-347. <u>Ellis JG, Lagudah ES, Spielmeyer W, Dodds PN,</u> <u>The past, present and future of breeding rust resistant wheat. Front Plant Sci. 2014 Nov</u> 24;5:641. doi: 10.3389/fpls.2014.00641. PMID: 25505474; PMCID: PMC4241819.