Blueberry is considered a "superfood", for its many health properties and nutritional values including vitamins, minerals, trace elements, powerful antioxidants, and fibers .

Blueberries Anthocyanins (purple/blue dye color) are powerful antioxidants also used as anti-inflammatory substances. These same substances contribute to cardiovascular health, while also improving and maintaining optic health and enhance vision, especially night vision. Blueberries have a role in the anti-aging process, preventing blood lipids. According to nutritionists, blueberries able to reduce diabetes damages, they can relieve arthritis and prevent the process of malignant diseases in the gastrointestinal tract. For these reasons and more, there is an increasing demand for blueberry in Israel and abroad .

Blueberries belong to the Ericaceae family. They originate from North America, mostly growing in swamps .

It is a perennial plant with shallow roots. Some blueberry varieties which are deciduous and require high cold doses, compared to other evergreen varieties with low cold demands .

The blueberry varieties are divided into HIGHBUSH, LOWBUSH, and RABBIT EYE .

Blueberry varieties most essential need is for soil acidity. For good growth and ensuring quality fruit, blueberries should be grown in an acid soil ranging between 4.5 and 5.5 pH .

This is the main reason why blueberry's culture is challenging in Israeli soils that are neutral and even basic (between 7 and 8 pH). Most of the blueberries in Israel are growing on soilless culture (hydroponics) .

To obtain required acidity, it is essential to choose the right substrate and acidify the irrigation water (preferably with sulfuric acid). Nitrogen fertilizer in the form of ammonium also reduces acidity in the root zone .

Research has shown the plant preference for nitrogen in the form ammonium rather than nitrate ion, therefore nitrogen fertigation should be based on ammonium.

It is recommended to add a nitrogen stabilizer to the fertilizer to prevent the ammonium from turning into nitrate in the nitrification process .

The blueberry plant does not require large amounts of nutrients.

Thus, it should be taken into consideration that increased nitrogen fertilization might produce large plants without fruit .

In hydroponic, **"Shafir Sulfate Blue"** solutions are recommended for fertigation, with careful monitoring of acidity and accurate nutrients concentration in the dripping water and in the drainage water .

Soil cultivation should be fertilized with "Tov Blue" fertilizer as the "Blue" additive preserves the nitrogen in the form of ammonium. The ammonium absorption in the plant is caused to reduces the pH in the rhizosphere zone, which enhances the availability of trace elements and phosphorus .

Gat Fertilizers specializes and offers its wide experience in producing and composing fertilizer solutions in various NPK ratios in combination with zinc (Zinc-Gat) and other trace elements adapted to orchards according to plant's nutrient analysis, water quality, soil tests, based on growing stages and the plant needs, this in addition to close and reliable agronomic guidance .

Fertilization guidelines are mentioned for recommendation only .

Gat Fertilizers' agronomist team is ready anytime to provide solutions and professional guidance .

Michal Kanot, Gat Fertilizer agronomist