



Blueberry



**INCREASE YOUR CROP
YIELD EFFECTIVELY**

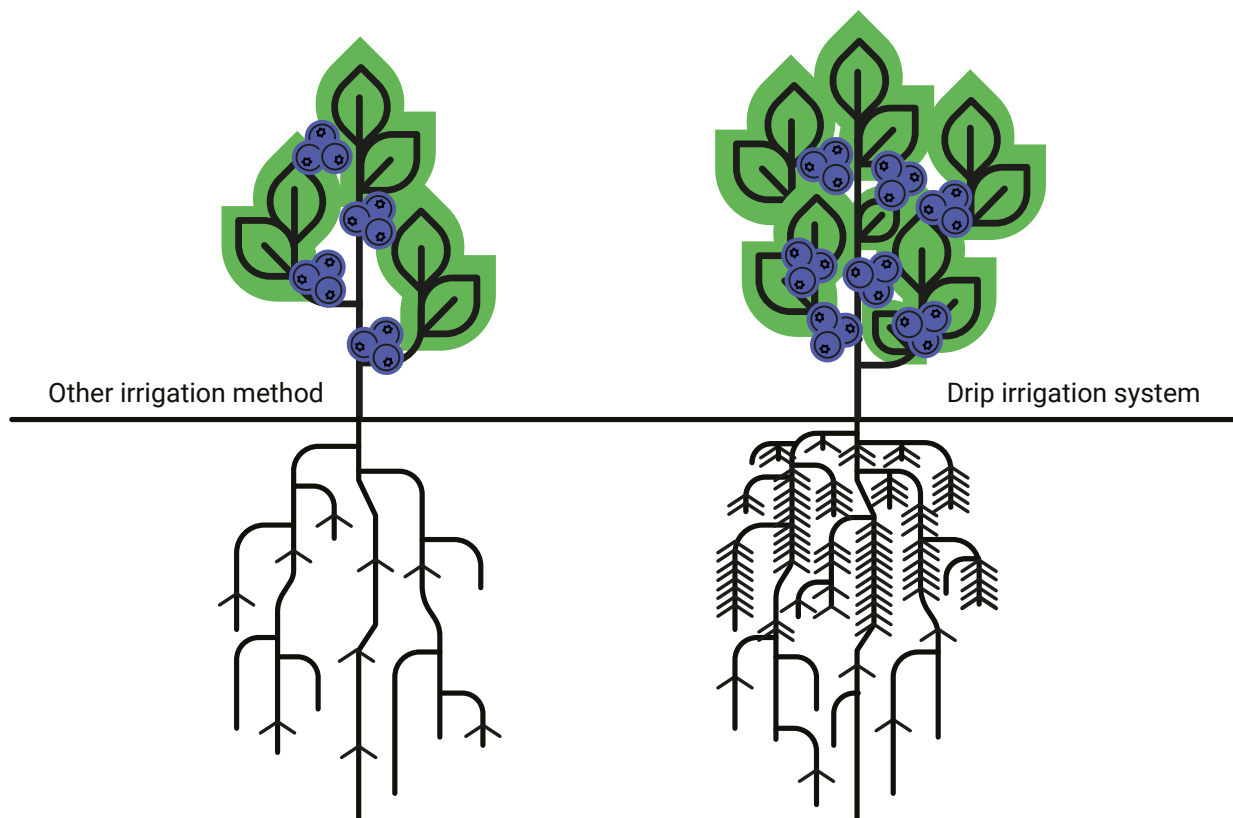


We use our knowledge to help blueberry growers to save time and money, minimize product waste, and maximize harvest quality and yield. Irrigating is a complex task that depends on your region and soil type in your field.

Drip irrigation

Tool for supplying the plant requirements at the optimal time and place. It holds many benefits:

- ◆ Concentrates the roots in a defined soil volume, saving the plant's energy
- ◆ Improves the water and nutrient uptake efficiency
- ◆ Develops optimal moisture and aeration conditions.
- ◆ Increases irrigation effectiveness on uneven ground
- ◆ Reduces leaking of water and nutrients below the root zone
- ◆ Increases leaf area, rate of net photosynthesis and have a positive effect on the assimilation of nutrients, including a direct positive effect on productivity
- ◆ Increased caliber seed, less waste, and fewer defects





Blueberry

Blueberries are currently experiencing high popularity and consumer demand because of the recognized health benefits due to the high concentration of antioxidants contained in their pigmented fruit.



Even in a small space, you can plant blueberries and yield a successful crop.

Blueberries are sensitive to water deficit and water excess. Most of the roots are not deeper than 30cm. Generally, roots are fibrous with no root hairs, because of that clumsy regarding uptake of water and nutrient.

Blueberries are sensitive to salinity and require acidic growing conditions of 4.5 – 5.0 pH with high organic content and good drainage.

Blueberry requires good aeration and constant moisture.



Most important factors for growing blueberries and achieving good yields in the long term:

- 💧 Climate
- 💧 Planting distances
- 💧 Pollination
- 💧 Fertilization
- 💧 Irrigation
- 💧 Pruning and thinning

Optimal soil type:

Well-drained, sandy soils with a pH of 4.5 to 5.5.



Critical stages for water stress in the soil for blueberries

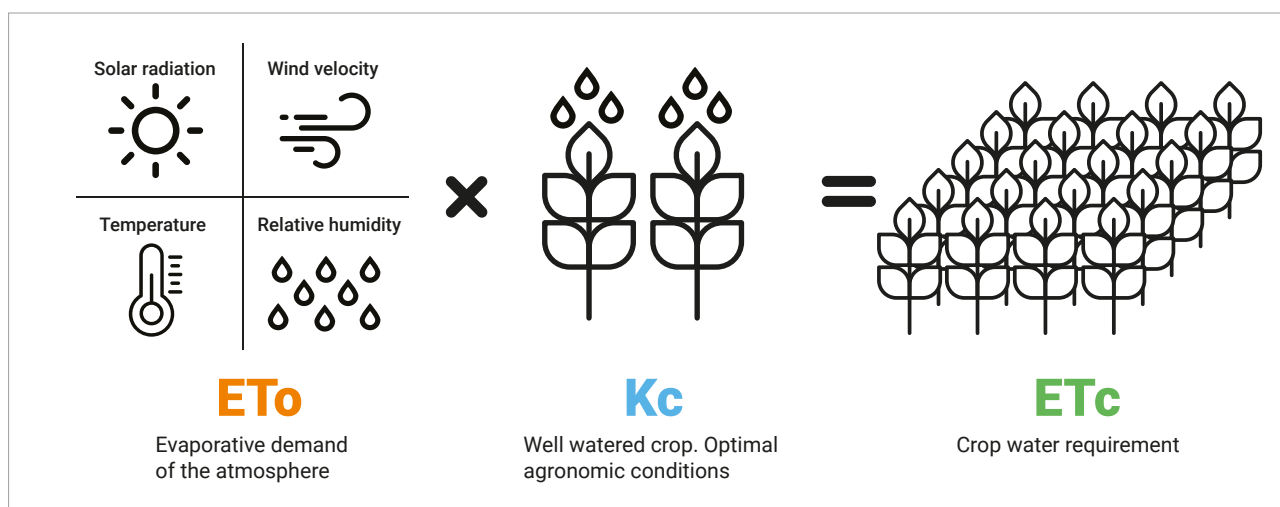
Blueberries are extremely sensitive to water stress, and they need a very specific amount of water during the blooming time, fruit set, and ripening.

Fruit buds for the next season develop following harvest during the late summer and fall. Adequate moisture in the fields and plants also reduces Winter Injury.

How to calculate water budget?

To calculate the water budget, you need five pieces of information:

1. Evapotranspiration (ET_o)
2. Crop factor (K_c)
3. Crop evapotranspiration (ET_c)
4. Rainfall
5. Irrigation applied



Evapotranspiration (ET_o)

The total water loss from the soil, including that by direct evaporation and that by transpiration from the surfaces of plants.

Crop factor (K_c)

Irrigation return rate coefficient with relation to evapotranspiration. The factor is comprised of crop phenological stage, soil cover and irrigation strategy, during the growing period.

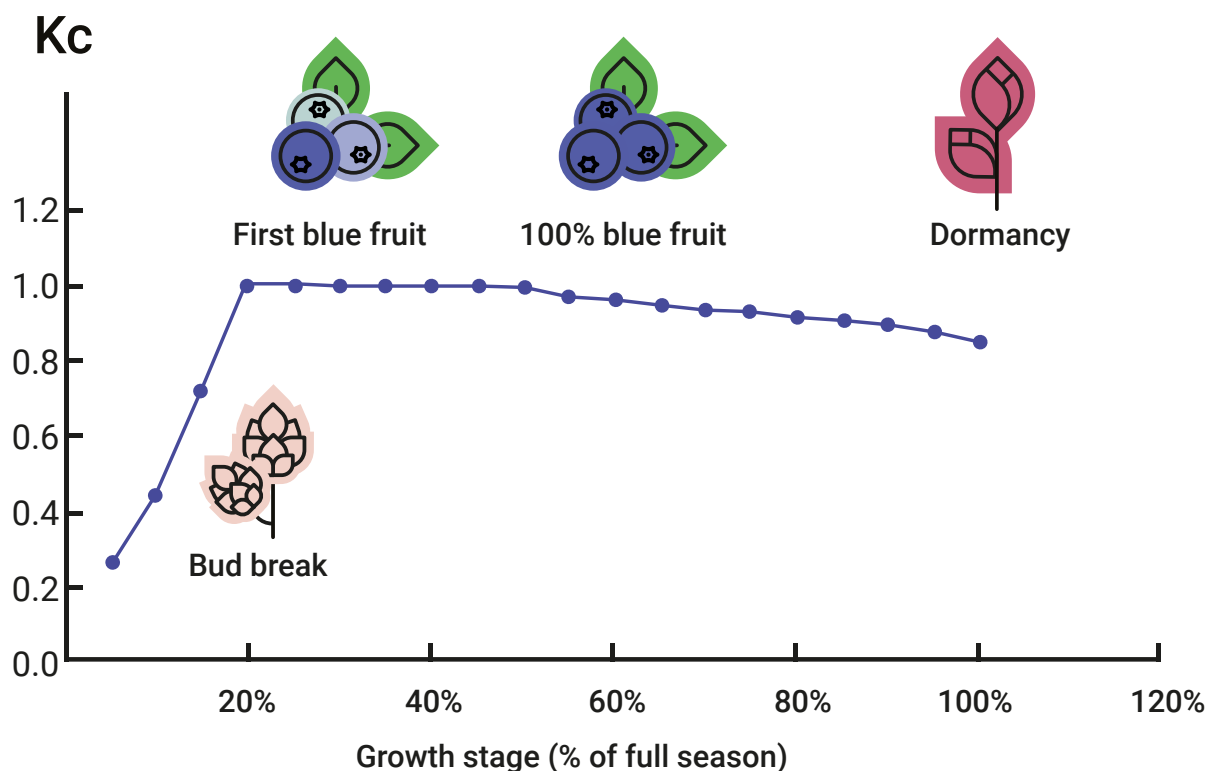
Crop evapotranspiration (ET_c)

Water loss as evaporation + transpiration from disease free, well fertilized crops, grown in large fields, under optimum soil water conditions, and achieving full production under the given climatic condition.



Kc values for Blueberry

Bud break	First blue fruit	100% blue fruit	Dormancy
0.25	1.00	0.98	0.85



The technical solutions for irrigation systems according to the growing method.

There are two different methods of growing blueberries:
 in the soils
 in the pots (containers)

For both methods, we recommend the use of pulse irrigation.

Pulse drip irrigation is a technique where small frequent irrigation applications are applied to soak the soil and meet the plant water requirements. This way, less water, and nutrients leak beneath the root zone, and the soil is not overwatered.



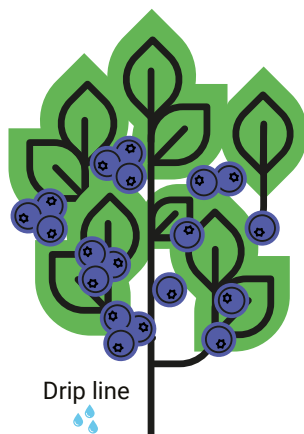
Irrigation technical recommendations

- ◆ **Distance between drippers:**
0.25 m to 0.5 m
- ◆ **Discharge rate will be according to soil type,**
normally 1.0-1.4 l/h.

For growers in the soil, the irrigation system should include two driplines, one on each side of the bed. The wetted area is a crucial factor in the production of blueberries. Two laterals placed on each side of the plant provide water for more of the total root diameter, wetting almost a whole ridge and increasing nutrient uptake.

For growers in the containers (pots), the irrigation system should use online drippers. We recommend one dripper with an outlet adapter and two or four pegs per pot. Pegs create a wet area for the whole container. Crops in the containers are more sensitive to the water deficit. Substrate volume, chemical and physical characteristics, container dimensions, and shape have vital effects on irrigation quantity and frequency.

One driplines per row



Drip line

Two driplines per row



Drip line

Drip line

Wetting front

Wetting front

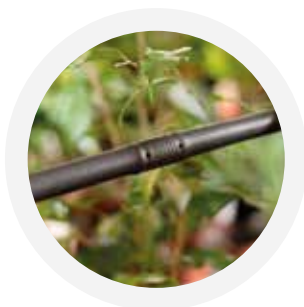


Products that will meet your needs, whatever the size of your orchard



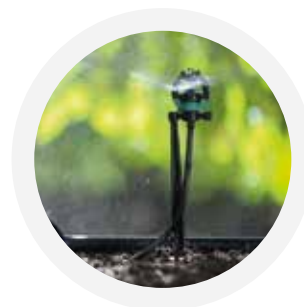
MAIN LINE

- PE pipes
- High-pressure fittings
- High-pressure valves



DRIPLINE AND ACCESSORIES

- PoliDrip PC driplines
- PoliDrip PCND driplines
- PoliDrip light PC driplines
- Low-pressure fittings and valves
- Tools and accessories



MICRO SPRINKLER SYSTEM

- Irrigation, cooling, and frost protection for orchards
- Delivers a uniform spray pattern at a low angle for under tree applications
- Built-in anti-insect device



FILTRATION

- Hydrocyclone
- Disc and screen filters (manual, semi-automatic, automatic)
- Gravel media filters (manual, automatic)



FERTIGATION

Fertigation systems appropriately dose the quantity of fertilizer necessary for the crop. No waste of expensive chemicals, labor, and machinery. No uncontrolled pollution, unnecessary soil compression, and crop damage.



AUTOMATION

We have a wide range of controllers for irrigation and fertilization control. They are configurable and with multiple possibilities of use, communication, and extension. Equipped for irrigation control, fertilization, pumping, and filter cleaning, with fault detection and detailed chronological recording of events and historical accumulation.

NOTE:

This brochure is for information purposes only, and results may vary depending on different factors. Please consult with an irrigation specialist and technical details for proper use of Poliext products.

Specifications and designs of products may change without notice. Make sure to verify the information before making any decision.



Get your orchard a good start



Tell us about your project



Poliext Kft.
6000 Kecskemét Matkó tanya 232. - Hungary
Tel: +36 76 415 770 / Fax: +36 76 502 709
Email: export@poliext.com
www.poliext.com