

WATER FOOTPRINT OF PROTEIN YIELD OF FIELD CROP SPECIES BASED ON EVAPOTRANSPIRATION PATTERNS

**MÁRTON JOLÁNKAI, KATALIN M. KASSAI, ADNAN ESER, LAURA KEMPF,
ÁKOS TARNAWA**

Szent István University, Crop Production Institute
Gödöllő, Hungary
jolankai.marton@gmail.com

Water availability is one of the major physiological factors influencing plant growth and development. An assessment study has been done at the Szent István University, Gödöllő to evaluate and identify the water footprint of protein yield of field crop species. Six field crop species (Sugar beet *Beta vulgaris*, winter barley *Hordeum vulgare*, winter wheat *Triticum aestivum*, maize *Zea mays*, potato *Solanum tuberosum*, and alfalfa *Medicago sativa*) were involved in the study. Evapotranspiration patterns of the crops studied have been identified and physiologically reliable protein ranges within crop yields were evaluated.

The results obtained suggest, that water footprint of cereals proved to be the lowest, however maize values were highly affected by the high variability of protein yield. Alfalfa, potato and sugar beet water footprints were in accordance with their evapotranspiration patterns.