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# HRVATSKO DRUŠTVO ZA BILJNU BIOLOGIJU



## POZIV NA GODIŠNJU SKUPŠTINU

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u Vijećnici Biološkog odsjeka PMF-a  
Sveučilišta u Zagrebu, Rooseveltov trg 6, Zagreb

Predloženi dnevni red:

1. Uvodna riječ Predsjednice
2. Prihvatanje dnevnog reda, izbor zapisničara i ovjervitelja zapisnika
3. Izvještaj Predsjedništva
4. Izvještaj Nadzornog odbora
5. Plan rada za 2012. godinu
6. Organizacija 5. Simpozija HDBB-a
7. Razno

Prije skupštine će **Cristian Meriño Gergichevich** (Doctorate Program of Sciences in Natural Resources, Universidad de La Frontera, Temuco, Chile), održat predavanja pod naslovom

### **Effects of gypsum addition in the reduction of aluminum toxicity in blueberry cultivars growing in an Andisol**

Blueberry (*Vaccinium corymbosum* L.) is an important crop in Chile that is principally grown in acid soils ( $\text{pH} \leq 5.5$ ) as Andisol. However, it is sensitive to toxic aluminum ( $\text{Al}^{3+}$ ), which is liberated under acid conditions. Gypsum addition is an effective agronomical practice to ameliorate its toxicity, without alters soil pH. In order to know effect of gypsum on chemical (nutrient content), physiological (growth, water relation, and photochemical performance) and biochemical features such as lipid peroxidation, radical scavenging activity, and antioxidant compounds in this species under aluminum toxicity were studied in two separated experiments. In first experiment, one year old plants of two cultivars, Legacy (Al tolerant) and Bluegold (Al sensitive), grown 15 days in nutrient solution ( $\text{pH} 4.5$ ) were subjected to 100 and  $200\mu\text{M}$  Al and ameliorated with 2.5, 5 and 10mM of gypsum. In the second, blueberry plants grown (60 days) in an Al saturated Andisol ( $\sim 70\%$ ), were amended with gypsum at rate of 0, 1000, 2000, and  $4000 \text{ kg ha}^{-1}$ . In both experiments, gypsum improved nutrient balance and Ca/Al molar ratio in leaves and roots, as well as photochemical parameters, carotenoids contents, and relative water content especially in Legacy. However, gypsum did not show clear effects on chlorophyll contents and leaf water potential. This amendment decreased lipid peroxidation and flavonoids in both cultivars, whereas radical scavenging activity, phenol, anthocyanins, and antioxidant enzymes were significantly increased. Gypsum can be an effective amendment to ameliorate  $\text{Al}^{3+}$  on blueberry, mainly in Al tolerance cultivars. Nonetheless, higher doses could be required to prevent harmful effect of  $\text{Al}^{3+}$  on Al sensitive cultivars grown in this soil types.