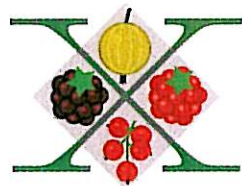




International Society for Horticultural Science  
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Institute of Pesticides and Environmental Protection, Belgrade

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# International *Rubus & Ribes* Symposium

– Book of Abstracts –



## Impact of climate on productivity and quality of raspberry

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Changing climatic conditions are becoming a limiting factor in the sustainable production of raspberry fruit when growing existing commercial cultivars in the North Sea Region (NSR). A series of cultivar trials have been established at six transnational sites (Sweden, Norway, Germany, Scotland and Denmark) from May 2010 to September 2013 to evaluate selections of raspberry cultivars. In addition, five cultivars of primocane fruiting raspberry; 'Autumn Bliss', 'Autumn Treasure', 'Fall Gold', 'Erika' and 'Polka', and six cultivars of floricanne raspberry; 'Tulameen', 'Glen Ample', 'Glen Fyne', 'Octavia', 'Glen Doll' and 'Glen Rosa' were planted in a randomized complete block design with three replication at AU, Denmark. Each cultivar will be evaluated for specific physiological traits representing plant productivity and fruit quality. Climate data is being collected across the NSR trial sites to identify the relationships between climate and fruit yield and quality, and to understand the interaction between environment and plant factors. Postharvest evaluation of dry matter (%), total soluble solids, titratable acidity, anthocyanidin composition (cyanidin and pelargonidin) and total phenol will be carried out. An additional potted experiment was established under greenhouse condition at AU, Denmark to evaluate the photosynthetic efficiency of the five primocane fruiting raspberry cultivars under elevated temperature regimes (20°C, 23°C, 27°C, 32°C, and 37°C). Cultivars were evaluated for maximum chlorophyll fluorescence ( $F_m$ ), quantum efficiency ( $F_v/F_m$ ) and initial fluorescence ( $F_0$ ). Heat tolerant primocane raspberry cultivars will be selected for future raspberry breeding program activities.