

Symposium Topic

1: Root growth, anatomy and morphology

RAP No	Presenting Author		Title	
1.	008 -1	Gebauer	Roman	Impact of soil compaction on the tracheid diameter and the theoretical hydraulic conductivity of Norway spruce seedlings
2.	013 -1	Ardakani	Mohammad	Effect of co-inoculation with rhizobia and mycorrhiza on root parameters of lucerne (<i>Medicago sativa</i> L.) under dry organic farming conditions
3.	018 -1	Gavardashvili	Givi	Quantitative study of the root system and sprouts of the antierosional plant vetiver (<i>Vetiveria zizanioides</i> , L. Nash)
4.	020 -1	Zanetti	Federica	Root morphology of two modern high-erucic acid oilseed rape varieties (<i>Brassica napus</i> var. <i>oleifera</i>) in response to reduced agricultural inputs
5.	035 -1	Herrmann	Antje	Temporal and spatial root growth dynamics of <i>Lolium Perenne</i> L. after defoliation
6.	037 -1	Barion	Giuseppe	Root and nodule efficiency in soybean (<i>Glycine max</i> (L) Merr.) in differing conditions of water and nitrogen supply
7.	077 -1	Fujii	Saori	Fine root biomass and morphology of <i>Pinus densiflora</i> under different conditions of aboveground growth
8.	078 -1	Karahara	Ichirou	Effects of lateral mannitol treatment on the development of tissues in rice seminal roots
9.	079 -1	Kollarova	Karin	Influence of galactoglucomannan oligosaccharides on cell elongation in primary and lateral roots of intact mung bean plants
10.	080 -1	Lišková	Desana	Interaction of galactoglucomannan oligosaccharides with auxin and activity timing in seminal root growth
11.	085 -1	Bärdulis	Andis	Studies on the development of root systems in young forest stands of deciduous trees in naturally-afforested agricultural lands
12.	087 -1	Metselaar	Klaas	Fractal dimensions of rooting systems - the case of the Wurzelatlas mitteleuropäischer Ackerunkräuter und Kulturpflanzen
13.	088 -1	Metselaar	Klaas	Allometric relations between roots and shoots based on the root atlases
14.	093 -1	Salguero	Julio	Relationship between pericycle cell length and lateral root spacing in maize roots
15.	109 -1	Hund	Andreas	A meta-analysis of QTLs controlling root growth and the response to abiotic stresses in maize
16.	121 -1	Yahya	Asha	Root morphology and dynamics in yeheb (<i>Cordeuxia edulis</i> Hemsley) plants
17.	131 -1	Savé	Robert	Late season root profile development of three contrasting vine rootstocks
18.	132 -1	Tanimoto	Eiichi	Gibberellin regulation of root growth and flowering in tea plant (<i>Camellia sinensis</i>)
19.	133 -1	Hayashi	Michi	Gibberellin-mediated regulation of major cell-wall proteins in pea roots
20.	138 -1	Yamashita	Masataka	Several factors relating on rooting of strawberry young plants
21.	150 -1	Zobel	Richard	Insights into fine root development patterns of perennial ryegrass (<i>Lolium perenne</i> L.)
22.	156 -1	Martinka	Michal	The endodermal cell to cell contact is required for the spatial control of Casparian band development
23.	162 -1	Čiamporová	Milada	Root anatomy and growth of three Arabidopsis species differing in their heavy metal tolerance
24.	172 -1	Srba	Miroslav	The symplastic cell interconnection during the maize and reed root cortex differentiation
25.	173 -1	Husáková	Eva	Anatomical analysis of Irt1 maize mutant
26.	197 -1	Obroucheva	Natalie	Lignification commencement in roots is controlled by the time after elongation completion

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5: Climate change and environmental stresses

RAP No	Presenting Author		Title	
1.	009 -5	Ehara	Hiroshi	Role of root to avoid salt stress in Sago palm (<i>Metroxylon sagu</i> Rottb.)
2.	014 -5	Moghaddam	Ali	Root biomass of eighteen alfalfa (<i>Medicago sativa</i> L.) cultivars in two different environments under organic management
3.	022 -5	Shimamura	Satoshi	Oxygen transport to flooded roots for respiration via aerenchyma in soybean (<i>Glycine max</i>)
4.	024 -5	Ehara	Hiroshi	Seedling growth and aluminum distribution in root of sago palm under low pH condition
5.	029 -5	Vamerali	Teofilo	Shoot and root phytotoxicity by EDDS in relation to dose and application time in <i>Brassica carinata</i> L. and <i>Raphanus sativus</i> L. var. <i>Oleiformis</i>
6.	039 -5	Shimono	Hiroyuki	Factors responsible for diurnal and seasonal changes in the reduction of stomatal conductance in paddy rice caused by elevated CO ₂
7.	046 -5	Ohashi	Mizue	Contribution of root systems on soil CO ₂ efflux in a tropical rainforest in Borneo, Malaysia
8.	059 -5	Korhonen	Anna	Frost hardiness of mycorrhizal and non-mycorrhizal Scots pine (<i>Pinus sylvestris</i> L.) roots
9.	062 -5	Bohner	Andreas	Effects of sewage sludge application on the arbuscular mycorrhizal colonization of selected grassland species in Austria
10.	107 -5	Reimer	Regina	Association mapping for root traits of maize (<i>Zea Mays</i> L.) grown at three temperature regimes
11.	122 -5	Arndal	Marie	Root dynamics and nitrogen uptake in a future climate
12.	145 -5	Oyanagi	Atsushi	Wet injury in drained paddy fields and root aerenchyma formation of wheat
13.	149 -5	Kawaguchi	Kentaro	Formation of aerenchyma in seminal root of wheat under nutrient starvation and transcriptome analysis
14.	160 -5	Gurínová	Erika	Ameliorating effects of aluminium on low pH-induced structure damage to <i>Lotus corniculatus</i> root cells
15.	161 -5	Miguel	Carolina	Carbon accumulation in fine roots of soils of a Mediterranean oak forest growing under different levels of thinning and drought conditions after fire disturbance
16.	167 -5	Luxova	Miroslava	The effect of different Si concentrations on antioxidative response in young maize and oilseed roots
17.	178 -5	Chiba	Masahiro	Effect of deep-flood irrigation on grain quality, yield and root activity in rice
18.	184 -5	Krisinger	Gabriele	Growth and vitality of fine roots of Norway spruce as influenced by experimental and natural drought
19.	185 -5	Himmelbauer	Margarita	Soil compaction and root growth controlling factors in cropland, semi-arid of South Bulgaria
20.	186 -5	Himmelbauer	Margarita	Root characteristics of <i>Lotus corniculatus</i> L. and <i>Bromus inermis</i> L. grown on eroded rangeland in a semi-arid area of South Bulgaria
21.	193 -5	Vaculík	Marek	Root anatomical responses of two <i>Salix caprea</i> isolates growing in different environmental conditions

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3: Rhizosphere and soil organisms

RAP No	Presenting Author	Title
1. 006 -3	Babay-Ahari Assadollah	Identification and pathogenicity of the fungi species causing root rot on pepper in West Azerbaijan province of Iran
2. 010 -3	Rezvani Mohammad	Interaction between alfalfa (<i>Medicago sativa</i> L.) mycorrhizal roots traits and heavy metals (Cd, Co and Pb)
3. 011 -3	Nandi Rajasree	Biodiversity of arbuscular mycorrhizal fungi in some forest tree species in Bangladesh
4. 012 -3	Ardakani Mohammad Reza	Root area index of lucerne affected by rhizobia and mycorrhiza under dry organic farming conditions
5. 016 -3	Noormohammadi Ghorban	Evaluation mycorrhizal symbiosis and root traits of barely (<i>Hordeum vulgare</i> L.) under heavy metals stress
6. 041 -3	Levai Laszlo	Some effects of soil born bacteria in plant nutrition
7. 042 -3	Merbach Wolfgang	Influence of rhizosphere bacteria of African oil palm (<i>Elaeis guineensis</i>) on calcium, iron, and aluminum phosphate in vitro mobilization
8. 070 -3	Nell Monika	Arbuscular mycorrhizal fungi increase pharmaceutical active compounds in Valerian roots
9. 071 -3	Vierheilig Horst	Bioprotection against the root parasite <i>Orobancha crenata</i> is induced in pea roots inoculated with Rhizobium leguminosarum bv viceae defective in Nod factor production
10. 114 -3	Wechselberger Katharina	Do earthworms affect the utilization of nutrients and the mycorrhizal colonization of grassland plants
11. 129 -3	Balloe Farnia	Effect of thiobacillus and mycorrhiza fungi under different levels of sulfur on yield and yield components of soybean
12. 140 -3	Oburger Eva	Field versus laboratory studies - comparing turnover rates of ¹⁴ C-labelled citrate in soil
13. 146 -3	Kaneko Michiyo	Auxin-regulation of hyphal elongation and spore germination in arbuscular mycorrhizal fungus, Gigaspora margarita
14. 158 -3	Montero Calasanz Maria del Carmen	Use of model plans for monitoring colonization of several PGPR isolated from an organic olive grove
15. 168 -3	Zeleznik Peter	Alteration of root growth caused by heavy forest machinery on Osankarica
16. 169 -3	Hrenko Melita	Mycobioindication method simplified: Sclerotia of <i>Cenococcum geophilum</i> Fr. as indicators of stress in forest soils
17. 177 -3	Albareda Contreras Marta	Differences in common bean root colonization by distinct PGPRs and their fluorescent marked derivatives
18. 189 -3	Fender Ann-Catrin	Effects of biota on biochemistry of the rhizosphere of deciduous tree species and its impact on carbon flow to the soil
19. 204 -3	Moreta Danilo	Biological nitrification inhibition as a novel approach for enhancing Nitrogen use efficiency in crops

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4: Allocation and partitioning in roots, contributions to soil C sequestration

RAP No	Presenting Author	Title
1. 056 -4	Hirano Yasuhiro	Pattern of aluminium-induced efflux of organic acid anions in root tips differs between <i>Cryptomeria japonica</i> and <i>Pinus thumbergii</i> seedlings
2. 076 -4	Dannoura Masako	Belowground carbon allocation: recovery of ¹³ C in root growth and respiration after in situ ¹³ CO ₂ pulse labeling
3. 095 -4	Budkevich Tamara	Evolution of biologically active organic exometabolite content in rhizosphere of agrocenoses of different species composition
4. 101 -4	Makita Naoki	Seasonal change in fine root respiration and morphological characteristics in a broad-leaved forest in Japan
5. 102 -4	Matsumoto Akira	Direct measurement of heterotrophic decomposition respiration from root litter in warm-temperate secondary deciduous forest in Japan
6. 118 -4	Schwarz Dietmar	Assimilate partitioning towards the roots at increased nutrient solution concentration affected by tomato fruit size and origin
7. 136 -4	Gonzalez Maya	Roots of understory species in maritime pine forests
8. 147 -4	Bingham Ian	Factors influencing the rate of senescence of clover roots following permanent excision of the shoot
9. 148 -4	Bingham Ian	Influence of soil compaction on the dynamics of root growth and mortality in spring barley
10. 152 -4	Teliševa Gajina	Siliceous lignin as promoter for root system development of coniferous trees seedlings
11. 153 -4	Yamashita Tamon	Spatial variation of fine root biomass in a lowland dipterocarp forest, Peninsular Malaysia
12. 155 -4	Børja Isabella	Stem girdling effect on soil respiration in 35 and 65 years old Norway spruce (<i>Picea abies</i>) stands
13. 165 -4	Püttsepp Ülle	Fine-root biodegradation measurements in controlled OxiTop system
14. 181 -4	Braun Michaela	Root and shoot growth and yield of different grass-clover mixtures

4.1 COST Action: Belowground carbon turnover in European forests

15. 017 -4.1	Ephrath Jhonathan	Influence of high salinity on root biomass and sap flow of adult olive trees
16. 053 -4.1	Lukac Martin	Belowground allometric relations in Norway spruce growing in soils with contrasting boulder and water content
17. 098 -4.1	Ostonen Ivika	Long-root growth dynamics, bio- and necromass, turnover rate, NPP and its proportion of fine root production in a fertile Norway spruce forest
18. 106 -4.1	Rosenvald Karin	Dynamics of fine-root, rhizosphere and soil parameters in a silver birch stand chronosequence on reclaimed oil shale mining area
19. 135 -4.1	Bakker Mark R.	Seasonality in growth of ectomycorrhizal hyphae in <i>Fagus</i> , <i>Quercus</i> and <i>Pinus</i> in France
20. 192 -4.1	Zakharova Anna	Root decomposition and soil carbon pools in a laboratory experiment

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6: Root - Soil Interactions: modelling concepts

RAP No	Presenting Author	Title
1. 081 -6	Herrera Juan	Root growth and leaching of nitrogen of catch crops - results from a lysimeter project
2. 108 -6	Hund Andreas	Depth and vertical distribution of roots in tropical maize inbred lines
3. 117 -6	Zubkova Tatiana	Influence of salts on soils and plant in city
4. 125 -6	Bodner Gernot	Model based assessment of barley root ideotypes for breeding strategies in water limited environments
5. 130 -6	Starr Mike	Modelling depth distribution of tree roots in boreal forests
6. 139 -6	Shelef Oren	Root halotropism? Salinity effects on Kochia (<i>Basia indica</i>) roots

Poster Session III

Friday, September 4, 2009

Time: 10:00 to 11:00

Symposium Topic

2: Root uptake, use efficiency and competition

	RAP No	Presenting Author		Title
1.	002 -2	Egodawatta	Chaminda	Application of green manures affect root development and nitrogen uptake of field grown maize and mungbean in tropical minor seasons
2.	003 -2	Egodawatta	Chaminda	Root development of maize as affected by weeds in tropical major and minor seasons
3.	048 -2	Brown	Lawrie	Genotypic variation in root traits involved in phosphorus utilization by barley
4.	050 -2	Båth	Birgitta	Root pruning reduces root competition and increases crop growth in a living mulch cropping system
5.	054 -2	Kikuchi	Sunao	Study of root zone restriction by transplanting cultivation for suppression of cadmium content in Spinach
6.	065 -2	Kudrjashov	Anatolij	Modification of NH ⁺ ions transport into <i>Zea mays</i> germ roots by means of exogenous aminoacids
7.	075 -2	Moreno-Jiménez	Eduardo	Mercury uptake kinetics by white lupin roots
8.	082 -2	Zelko	Ivan	Effect of root structure on root cadmium uptake in maize
9.	090 -2	Abe	Jun	Silicion deposition in roots of forage grasses
10.	094 -2	Zabolotny	Alexander	Cd accumulation in roots and nitrogen - fixing activity of root nodules in leguminous plants
11.	096 -2	Gaudin	Amelie	Maize (<i>Zea mays</i> L.) root architectural plasticity in response to critical Nitrogen stress using an aeroponics system
12.	097 -2	Petritan	Ion Catalin	Effects of root trenching of overstorey Norway-spruce (<i>Picea abies</i>) on root growth of underplanted beech (<i>Fagus sylvatica</i>) and Gouglas fir (<i>Pseudotsuga menziesii</i>) seedlings
13.	099 -2	Nihei	Naoto	A study of glutamine uptake by rice roots
14.	103 -2	Homma	Tomoo	Effects of Cd treatment on root activity in tea plants
15.	116 -2	Čermák	Jan	Absorbing roots and leaves distribution in studies based on the whole tree approach in large pines and oaks
16.	175 -2	Schweiger	Peter	Root distribution of winter wheat cultivars as affected by drought
17.	194 -2	Kristensen	Hanne L.	Root growth and N uptake to 1.6 m soil depth by babyleaf rucola on sandy soil
18.	199 -2	Crush	Jim	Breeding for root system shape in perennial ryegrass (<i>Lolium perenne</i> L.)
19.	201 -2	Samardakiewicz	Slawomir	Is callose a barrier that does not enable penetration of the root cell protoplast in <i>Lemna minor</i> L. by lesd ions?

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7: Methods for root observation and measurement

	RAP No	Presenting Author		Title
1.	023 -7	Raza	Amir	Root sampling and analysis in lucerne (<i>Medicago sativa</i> L.) field trial
2.	030 -7	Vamerali	Teofilo	Methods for thresholding minirhizotron root images
3.	032 -7	Faget	Marc	Green fluorescent protein (GFP) - a tool to identify roots in mixed plant stands
4.	052 -7	Picon-Cochard	Catherine	Use of near-infrared reflectance spectroscopy to predict the percentage of dead versus living grass roots
5.	100 -7	Yamamoto	Rika	Ground penetrating radar can detect roots of <i>Pinus thunbergii</i> in a coastal forest
6.	105 -7	Britschgi	Deborah	Distinguishing roots of maize and weeds in plant mixtures
7.	113 -7	Karpachevskiy	Lev	The role of roots in the humus formation in soil
8.	119 -7	Sah	Shambhu Prasad	Tree and understorey fine root growth and longevity in a Norway spruce stand in northern Finland
9.	128 -7	Ghedira	Seif	Methods for root observation and measurement
10.	159 -7	Nakano	Aiko	Analysing of fine root growth from digital images
11.	171 -7	Watanabe	Hajime	No-tillage direct seeding cultivation in rice with single basal application of controlled availability fertilizer in poorly drained paddy soil
12.	174 -7	Chloupek	Oldrich	Electric capacity as a measure of the intact root system size in the soil
13.	183 -7	Beyer	Friderike	Vitality and turnover rates of tree fine roots affected by competition and drought
14.	188 -7	Andreas	Jacob	Fine root biomass and dynamics in a mature broad-leaved deciduous forest differing in tree species composition
15.	190 -7	Rose	Laura	Livestock identity effects on belowground biomass, fine root morphology, and nitrogen allocation in pastures differing in species diversity
16.	195 -7	Petrarulo	Marica	Mapping QTLs for root morphological traits in durum wheat