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Estimating a crop root system from limited core samples

King, John A.; Gay, Alan P.; Villalobos, J.; Testi, L.

Publication date:

2002

Citation for published version (APA):

King, J. A., Gay, A. P., Villalobos, J. (Ed.), & Testi, L. (Ed.) (2002). *Estimating a crop root system from limited core samples*. 15-18. <http://hdl.handle.net/2160/3921>

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tel: +44 1970 62 2400
email: is@aber.ac.uk

European Society for Agronomy

VII CONGRESS

Cordoba, Spain, 15-18 July 2002

Programme

Last updated: 04 July 2002



Sunday, 14 July

19:00

Registration

20:45

21:00

Welcome Reception

22:00

Monday, 15 July - ROOM 1

Opening Ceremony		
9:00	E. Fereres	Presidential address
	J. von Braun	Opening Address: European Agricultural Research in a Changing International Policy Environment
COFFEE BREAK		
11:00	POSTER SESSION:	Crop Quality and Post-Harvest Physiology Cropping and Farming Systems Seed Science and Technology ESA ASA CSSA SSSA Symposium on Water Limited Agriculture Nitrogen and Environment
Chair: N.C. Turner		
ESA ASA CSSA SSSA Symposium on Water-Limited Agriculture (ESA Div. 1,2,3)		
12:00	Sinclair T.	"REALISM" IN THE ART OF CROP TRAIT IMPROVEMENT FOR WATER-LIMITED ENVIRONMENTS
12:15		
12:30	Steduto P.	WATER PRODUCTIVITY OF PLANTS AND MOLECULAR BIOLOGY: AN ECO-PHYSIOLOGIST POINT OF VIEW
12:45		
13:00	Jensen C.R.	A MODEL SYSTEM SHOWING POSSIBLE REGULATION OF SHOOT FUNCTIONING IN FIELD GROWN MAIZE EXPOSED TO SOIL DRYING
13:15	Asseng S.	CONTRIBUTION OF CARBOHYDRATES STORED PRIOR TO GRAIN FILLING TO WHEAT GRAIN YIELD IN VARIABLE ENVIRONMENTS
LUNCH		
Chair: F.J. Villalobos		
ESA ASA CSSA SSSA Symposium on Water-Limited Agriculture (ESA Div. 1,2,3)		
15:00	Turner N.	ADAPTATION OF CHICKPEA TO WATER-LIMITED ENVIRONMENTS
15:15	Garcia del Moral L.F.	PATH COEFFICIENT ANALYSIS OF CORRELATIONS BETWEEN GRAIN FILLING, GRAIN YIELD AND PROTEIN CONTENT IN DURUM WHEAT UNDER TWO MOISTURE REGIMES IN SOUTHERN SPAIN
15:30	Marsal J.	THE INFLUENCE OF HETEROGENEITY IN FRUIT DISTRIBUTION ON WATER RELATIONS OF PEACH TREES
15:45	Moriana A.	FRUIT LOAD EFFECTS ON THE WATER RELATIONS OF OLIVE TREES
16:00	Mastrorilli M.	DOUBLE HARVEST: AN AGRONOMIC STRATEGY TO INCREASE THE WATER USE EFFICIENCY OF BIOMASS CROPS IN MEDITERRANEAN EUROPE
16:15	Blaha L.	INFLUENCE OF ABIOTIC STRESSES ON THE YIELD, SEED AND ROOT TRAITS
COFFEE BREAK		
Chair: P. Aguiar Pinto		
ESA ASA CSSA SSSA Symposium on Water-Limited Agriculture (ESA Div. 1,2,3)		
17:00	Hall A.E.	BREEDING FOR ADAPTATION TO DROUGHT: WHAT HAS WORKED AND WHAT HAS NOT WORKED, YET.
17:15		
17:30	Debaeke P.	CROP MANAGEMENT ADAPTATION TO WATER-LIMITED ENVIRONMENTS
17:45		
18:00	Karrou M.	IDENTIFICATION OF POTENTIAL GRAIN GROWTH CHARACTERISTICS FOR BREEDING DURUM WHEAT FOR DRY MEDITERRANEAN ENVIRONMENTS
18:15	Farre I.	THE RESPONSE OF LUPIN YIELD TO SOWING DATE IN A MEDITERRANEAN ENVIRONMENT: A SIMULATION EXPERIMENT
CITY COUNCIL RECEPTION IN THE "ALCAZAR DE LOS REYES CRISTIANOS"		
21:00		

Monday, 15 July - ROOM 2

	Opening Ceremony		
9:00	(SEE FRONT PAGE)		
10:30	COFFEE BREAK		
11:00	POSTER SESSION:	Crop Quality and Post-Harvest Physiology Cropping and Farming Systems Seed Science and Technology ESA ASA CSSA SSSA Symposium on Water Limited Agriculture Nitrogen and Environment	
	Chair: R. Habib		
	Cropping and farming systems (ESA Div. 5)		
12:00	Boning-Zilkens M.	COMPARISON OF TRADITIONAL AND OPTIMISED DOUBLE CROPPING SYSTEMS IN A WINTER WHEAT-SUMMER MAIZE ROTATION IN THE NORTH CHINA PLAIN NEAR BEIJING	Cropping and farming systems
12:15	Kubat J	THE EFFECT OF ORGANIC AND MINERAL FERTILISATION ON CROP YIELDS AND SOIL PROPERTIES IN THE POLYFACTORIAL FIELD EXPERIMENTS	
12:30	Roggero P.P.	EFFECTS OF REPEATED SOD SEEDING OR MINIMUM TILLAGE AND NITROGEN FERTILISATION ON DURUM WHEAT GRAIN YIELD IN THE CLAY HILLS OF CENTRAL ITALY	
12:45	Colbach N.	MODELLING BLACK-GRASS (ALOPECURUS MYOSUROIDES HUDS.) GERMINATION AND EMERGENCE DEPENDING ON SEED CHARACTERISTICS, SEED MOVEMENTS AND SOIL CLIMATE	
13:00	Kanton R.A.L.	YIELD AND INTERCROPPING ADVANTAGE AS AFFECTED BY MORPHOLOGICALLY AND PHYSIOLOGICALLY CONTRASTING MAIZE-PEA SOLE AND INTERCROPS	
13:15			
13:30	LUNCH		
	Chair: O. Christen		
	Nitrogen and Environment (ESA Div. 2,3,5)		
15:00	Igras J.	RISK OF WATER POLLUTION BY NITRATES FROM AGRICULTURAL ACTIVITIES IN POLAND	Nitrogen and Environment
15:15	Vianello M.	EFFECTIVENESS OF BUFFER STRIPS IN REMOVING SEDIMENT, NITROGEN AND PHOSPHORUS FROM CROPLAND RUNOFF	
15:30	Cavero J.	NITRATE EXPORTED IN THE DRAINAGE WATERS OF TWO SPRINKLER IRRIGATED DISTRICTS	
15:45	Teira M.R.	AMMONIA VOLATILISATION FROM ORGANIC RESIDUES APPLIED TO SOIL TOGETHER WITH THE NITRIFICATION INHIBITOR 3,4-DIMETILPIRAZOL PHOSPHATE (DMPP)	
16:00	Dauden A.	EFFECT OF PIG SLURRY ON CORN YIELD AND SOIL NITRATE CONCENTRATIONS	
16:15	Wery J.	COMBINATION OF TENSIONIC-TENSIONMETERS MEASUREMENTS AND CROP MODELS TO EVALUATE NITRATE LEACHING IN FARMERS FIELDS : A CASE STUDY ON LETTUCE FIELDS IN A MEDITERRANEAN COASTAL PLAIN	
16:30	COFFEE BREAK		
	Chair: M. Wang		
	Seed Science and Technology (ESA Div. 7)		
	Chair: J. Coutinho		
	Crop Quality and Post-Harvest Physiology (ESA Div. 4)		
17:00	Van Duijn B.	NON-INVASIVE AUTOMATED OXYGEN CONSUMPTION MEASUREMENT ON SINGLE SEEDS AS A NOVEL TOOL IN SEED RESEARCH	Seed Science
17:15	Wang M.	SPATIAL AND TEMPORAL EXPRESSION BETWEEN 14-3-3 ISOFORMS IN GERMINATING BARLEY EMBRYOS	
17:30			
17:45	Fowler B.	GRAIN PROTEIN CONCENTRATION AND CROP NITROGEN DEMAND IN WHEAT	Crop Quality
18:00	Gooding M.	THE EFFECT OF FUNGICIDES ON THE YIELD AND QUALITY OF WHEAT GRAIN	
18:15	Kauter D.	AN APPROACH TO ON FIELD FUEL QUALITY MANAGEMENT OF WINTER TRITICALE	
21:00	CITY COUNCIL RECEPTION IN THE "ALCAZAR DE LOS REYES CRISTIANOS"		

Tuesday, 16 July - ROOM 1

Chair: J. Porter		ESA ASA CSSA SSSA Symposium on Water-Limited Agriculture (ESA Div. 1,2,3)		
09:00	Richter G.M.	DROUGHT-GREATER RISK FOR FUTURE WHEAT PRODUCTION IN ENGLAND?		Symposium on water-limited agriculture
09:15	Justes E.	THE EFFECT OF CATCH CROPS ON THE WATER BUDGET OF THE FALLOW PERIOD AND THE SUCCEEDING MAIN CROP		
09:30	Consoli S.	OPTIMIZATION CRITERION OF WATER DISTRIBUTION FOR DEFICIT IRRIGATION SYSTEMS		
09:45	Girona J.	VINEYARD RESPONSE TO DIFFERENT IRRIGATION STRATEGIES. FIRST YEAR (2001) RESULTS		
10:00	Ortega Alvarez J.F.	MANAGEMENT OF WATER RESOURCES USING INTEGRATED TECHNIQUES. PROJECT MERIT (EVK1-CT-2000-00085)		
10:15	Zapata N.	CHANGES INDUCED BY A MODERNIZATION PROJECT IN AN IRRIGATION DISTRICT		
10:30	COFFEE BREAK			
11:00	POSTER SESSION:	Agroclimatology and Agronomic Modelling Workshop on Research for Development Precision Agriculture Nitrogen and Management Global Change		
Chair: I. Mínguez		ESA ASA CSSA SSSA Symposium on Water-Limited Agriculture (ESA Div. 1,2,3)		
12:00	Connor D.	DESIGNING CROPPING SYSTEMS FOR EFFICIENT USE OF LIMITED WATER		Symposium on water-limited agriculture
12:15				
12:30	Francis C.A.	AGROECOLOGY OF WATER USE AT THE FIELD, FARM, AND LANDSCAPE LEVELS		
12:45				
13:00	Sadras V.	INFLUENCE OF SIZE OF RAINFALL EVENTS ON WATER BUDGET COMPONENTS AND NITROGEN MINERALISATION		
13:15	Robertson M.J.	TESTING OF NEAR-FEASIBLE CROPPING OPTIONS WITH DRYLAND FARMERS		
13:30	LUNCH			
Chair: J.P. De Melo e Abreu		Carbon Sequestration and Global Change (ESA div. 1,2,6)		
15:00	Smith P.	CARBON SEQUESTRATION IN EUROPEAN CROPLAND		Global Change
15:15				
15:30	Aguiar Pinto P.	PORTUGUESE AGRICULTURE AND CLIMATE CHANGE		
15:45	de Vries S.C.	DESIGN OF SIMULATION EXPERIMENTS: AN EXAMPLE FOR ASSESSING POTENTIAL IMPACT OF CLIMATE CHANGE ON WHEAT YIELDS AND DEEP DRAINAGE IN WESTERN AUSTRALIA		
16:00	Weigel H.J.	EFFECTS OF FREE-AIR CO ₂ ENRICHMENT (FACE) AND SOIL NITROGEN FERTILIZER ON RADIATION ABSORTION, RADIATION USE EFFICIENCY AND YIELD OF WINTER BARLEY		
16:15	Vaz Correia A.	COMPARING SIMULATED GROWTH OF MANAGED GRASSLANDS UNDER PRESENT AND CLIMATE CHANGE SCENARIOS		
16:30	COFFEE BREAK			
Chair: M. Donatelli		Agroclimatology and Agronomic Modelling (ESA Div. 2)		
17:00	Brisson N.	ABOUT THE CROP TEMPERATURE AS SIMULATED BY THE STICS MODEL		Agroclimatology and Agr. Modelling
17:15	Ferreira T.C.	DIURNAL VARIATION OF CANOPY TEMPERATURE IN PLANT ROWS OF GRAPEVINE (VITIS VINIFERA L.) ON SOUTH FACING SLOPES OF THE DOURO VALLEY IN RESPONSE TO WATER AND MICROCLIMATE CONDITIONS		
17:30	Durand J.L.	AN ALTERNATIVE TO THE LOGISTIC EQUATIONS FOR SIMULATING SHOOT ELONGATION		
17:45	Diaz Espejo A.	ARE WE MANAGING CORRECTLY THE CANOPY OF OUR OLIVE TREES?		
18:00	Vanderlinden K.	SPATIAL DISTRIBUTION OF REFERENCE CROP EVAPOTRANSPIRATION IN ANDALUSIA		
18:15	Sester M.	MODELLING THE INFLUENCE OF CROPPING SYSTEMS ON GENE FLOW FROM HERBICIDE RESISTANT SUGAR BEET. PRESENTATION OF THE MODEL GENESYS-BEET		
21:00	INFORMAL PARTY IN THE "COLEGIOS MAYORES"			

Tuesday, 16 July - ROOM 2

Chair: J.L. Durand		Crop Physiology, Production and Management	
09:00	Tokatlidis I.S.	THE DEPENDENCE OF MAIZE HYBRIDS ON PLANT DENSITY AND THE CONSEQUENT IMPLICATIONS	
09:15	Wiecko G.	TURFGRASS IN THE TROPICS REQUIRES NONTRADITIONAL MANAGEMENT	
09:30	Hakala K.	HARDENING, GROWTH RHYTHM AND CARBOHYDRATE METABOLISM OF WINTER RYE (SECALE CEREALE L.) VARIETIES OF DIFFERENT ORIGIN	
09:45	Jordan Meille L.	LEAF AREA ESTABLISHMENT OF FIELD-GROWN MAIZE (ZEA MAYS L.) UNDER POTASSIUM DEFICIENCY	
10:00	Aragues R.	FIELD RESPONSE OF YOUNG OLIVE TREES (CV. ARBEQUINA) TO SOIL SALINITY: GROWTH, LEAF ION CONCENTRATIONS AND OIL QUALITY	
10:15	Zoerb C.	DEVELOPMENT OF A SALT-RESISTANT MAIZE CULTIVAR	
10:30 COFFEE BREAK			
11:00	POSTER SESSION:	Agroclimatology and Agronomic Modelling Workshop on Research for Development Precision Agriculture Nitrogen and Management Global Change	
Chair: H. Stuetzel		Precision Agriculture (ESA Div. 1,2,5)	
12:00	Barroso J.	SPATIAL STABILITY OF WILD OAT POPULATIONS UNDER ANNUAL USE OF LOW RATES OF HERBICIDES	
12:15	Graeff S.	IDENTIFICATION OF SITE-SPECIFIC MANAGEMENT ZONES TO TARGET NITROGEN APPLICATION	
12:30	Huber G.	YIELD FORMATION AND NITROGEN UPTAKE OF MAIZE ON HETEROGENOUS GROWING SITES - SPECTROSCOPIC DETECTION OF THE NUTRITION STATUS	
12:45	Bechini L.	ESTIMATION OF SOIL PROPERTIES WITH NEAR INFRA-RED SPECTROSCOPY: APPLICATION AT FARM SCALE FOR PRECISION FARMING	
13:00	Verhoef A.	ESTIMATION OF THE SOIL HEAT FLUX USING REMOTELY SENSED VARIABLES	
13:15	Gangloff W.	DEVELOPMENT AND DELINEATION OF PRODUCTION LEVEL NUTRIENT MANAGEMENT ZONES IN THE GREAT PLAINS REGION OF THE UNITED STATES	
13:30 LUNCH			
Chair: H. Stuetzel		Precision Agriculture (ESA Div. 1,2,5)	
Chair: H. Spiertz		Nitrogen and Management (ESA Div. 1,3,5,6)	
15:00	Acutis M.	SOIL MOISTURE VARIATION IN SPACE AND TIME IN MAIZE IRRIGATED FIELDS	
15:15	Guerif M.	ASSIMILATING REMOTE SENSING DATA INTO A CROP MODEL IMPROVES THE YIELD ESTIMATES ON A REGIONAL SCALE	
15:30	Zarco Tejada P.	LEAF CHLOROPHYLL A+B AND CANOPY LAI ESTIMATION IN CROPS USING R-T MODELS AND HYPERSPECTRAL REFLECTANCE IMAGERY	
15:45	Shaver T.M.	MULTIDISCIPLINARY PRECISION FARMING STRATEGIES TO INCREASE PROFITABILITY AND SUSTAINABILITY IN WESTERN GREAT PLAINS IRRIGATED AGRICULTURE OF THE UNITED STATES	
16:00	Lipski S.	EVALUATION OF MAIZE INBRED LINES FOR THE LIMITED NITROGEN CONTENT IN THE BACKGROUND	
16:15	Leidi E.O.	NITROGEN FIXATION AND CROP PRODUCTION IN AHIPA (PACHYRHIZUS AHIPA)	
16:30 COFFEE BREAK			
Chair: H. Spiertz		Nitrogen and Management (ESA Div. 1,5,6)	
17:00	Crnobarac J.	N-MIN METHOD IN SUNFLOWER FERTILIZATION	
17:15	Gerendas J.	INFLUENCE OF N FORM ON GROWTH AND WATER RELATIONS OF TOMATO PLANTS	
17:30	Schachtl J.	SPECTROSCOPIC MEASUREMENTS OF POTATO CANOPIES	
17:45	ten Berge H.	ACCUMULATION OF MINERAL NITROGEN IN SOILS UNDER GRASS AND MAIZE	
18:00	van Evert F.	MINAS DETERMINES NITROGEN FERTILIZATION ON DUTCH DAIRY FARMS	
18:15	Thompson, R.	RISK OF NITRATE LEACHING FROM THE HORTICULTURAL INDUSTRY OF ALMERIA, SPAIN	
21:00	INFORMAL PARTY IN THE "COLEGIOS MAYORES"		

Wednesday, 17 July - ROOM 1

Chair: P. Smith		Agriculture and Environment Relationships (ESA Div. 6)		
9:00	Spiertz H.J.	RESOURCE USE AND SUSTAINABLE CEREAL PRODUCTION		Agriculture and Environment
9:15	Simoes A.	ECOLOGICAL ECONOMIC ANALYSIS OF AGRICULTURE: A METHODOLOGICAL DEVELOPMENT AND A CASE STUDY		
9:30	Van de Ven G.W.J.	FARM EXPLORER: DESIGNING SUSTAINABLE ARABLE FARMING SYSTEMS		
9:45	Bockstaller C.	SOME METHODOLOGICAL ISSUES IN THE CONSTRUCTION OF ENVIRONMENTAL INDICATORS		
10:00	Ferro Godinho M.L.	ARE ENVIRONMENTAL FRIENDLY FARM HOLDINGS DIFFERENT? THE CASE OF PORTUGAL		
10:15	Thiollet M.	ADAPTATION OF A PESTICIDE INDICATOR TO THE WATERSHED SCALE		
10:30	COFFEE BREAK			
11:00	POSTER SESSION:	Crop Physiology, Production and Management Plant-Soil Relationships Agriculture-Environment Relationships Heavy Metals		
Chair: N. Brisson		Agroclimatology and Agronomic Modelling (ESA Div. 2)		
12:00	Van Ittersum M.K.	TOWARDS AN INTEGRATED SYSTEM FOR AGRO-ECOLOGICAL AND ENVIRONMENTAL MODELLING		Agroclimatology and Agr. Modelling
12:15	Pellegrino A.	A WATER BALANCE MODEL CAN BE USED TO EVALUATE THE WATER STRESS EXPERIENCED BY A CROP IN FARMER'S FIELDS : A CASE STUDY IN VINEYARDS IN SOUTH-EASTERN FRANCE		
12:30	Hochman Z.	USING THE CROPPING SYSTEMS SIMULATOR APSIM TO INVESTIGATE THE IMPACTS OF SUBSOIL CONSTRAINTS ON WHEAT PRODUCTION		
12:45	De Melo e Abreu J.P.	SIMULATION OF GROWTH, YIELD AND N, P AND K UPTAKE OF FIELD-GROWN GREEN BEANS		
13:00	Ewert F.	PREDICTING POTENTIAL DISTRIBUTION OF KARNAL BUNT (TILLETIA INDICA) OF WHEAT		
13:15	Nibouche S.	COTONS® - SIMBAD: A TOOL FOR ESTABLISHING COTTON BOLLWORM ECONOMIC DAMAGE THRESHOLDS		
13:30	LUNCH			
Chair: van Ittersum M.K.		Agroclimatology and Agronomic Modelling (ESA Div. 2)		
15:00	Berszenyi Z.	COMPARISON OF MODELS DESCRIBING MAIZE (ZEA MAYS L.) YIELD RESPONSE TO FERTILISER IN A LONG-TERM EXPERIMENT		Agroclimatology and Agr. Modelling
15:15	El Jarroudi M.	VALIDATION OF "PROCLTURE" MODEL TO PREDICT SEPTORIA TRITICI DEVELOPMENT ON WINTER WHEAT IN THE GRAND-DUCHÉ OF LUXEMBOURG IN 2001		
15:30	Palma J.	FILLING THE GAPS IN TIME SERIES FROM A FARM METEOROLOGICAL STATION		
15:45	Casali J	LONG TERM ASSESSMENT OF SOIL EROSION RATES IN VINEYARDS, AND ITS APPLICATION FOR USLE MODEL EVALUATION		
16:00	Rossing W.A.H.	SYSTEMATIC GENERATION AND EVALUATION OF CROP ROTATIONS		
16:15				
16:30	COFFEE BREAK			
17:00	ESA General Assembly			
17:15				
17:30				
17:45				
18:00				
18:15				
21:00	SOCIAL DINNER IN THE OLD WINERY "BODEGAS CAMPOS"			

Wednesday, 17 July - ROOM 2

Chair: D. Picard		Workshop on Research for Development		
9:00	Alvarez I.	AGRICULTURE RESEARCH AND FOOD SECURITY: THE ROAD AHEAD		WS on Research for Development
9:15				
9:30	Araus J.L.	EU/INTERNATIONAL CO-OPERATION FOR RESEARCH IN AGRICULTURE: FACING THE 6TH FRAMEWORK PROGRAM		
9:45	Martinez J.	MANAGEMENT OF ORGANIC RESIDUES IN AGRICULTURE: AN EUROPEAN PERSPECTIVE		
10:00	Cantero Martinez C.	Evaluation of agricultural practices to improve efficiency and environment conservation in mediterranean arid and semi-arid production systems. (medrate): an example for conservation tillage		
10:15				
10:30	COFFEE BREAK			
11:00	POSTER SESSION:	Crop Physiology, Production and Management Plant-Soil Relationships Agriculture-Environment Relationships Heavy Metals		
Chair: S. Schubert		Plant-Soil Relationships (ESA Div. 3)		
12:00	Scholtus N.	ROLE OF PLANTS IN ROCK WEATHERING AND THE DYNAMICS OF MINERAL NUTRIENTS		Plant-Soil Relationships
12:15	Yan F.	MECHANISMS RESPONSIBLE FOR THE RELEASE OF ORGANIC ACIDS BY HIGHLY PHOSPHORUS-EFFICIENT WHITE LUPIN (LUPINUS ALBUS L.)		
12:30	Manici L.	PYTHIUM SPP. AND TOTAL FUNGI RESPONSE TO GREEN MANURING		
12:45	Ford K.E.	ROOT LENGTH DENSITY VARIATION IN MODERN WINTER WHEAT CULTIVARS		
13:00	Rapoport H.F.	ANATOMICAL ASSESSMENT OF THE WHOLE ROOT SYSTEM WHEN INOCULATED WITH ARBUSCULAR MYCORRHIZAE		
13:15	Vamerali	ADVANCES IN MINIRHIZOTRON ROOT IMAGE ANALYSIS		
13:30	LUNCH			
Chair: S. Schubert		Plant-Soil Relationships (ESA Div. 3)		
Chair: H.J. Weigel		Heavy Metals (ESA Div. 6)		
15:00	Berti A	EFFECT OF LONG-TERM APPLICATION OF ORGANIC AND MINERAL FERTILISERS ON SOIL WATER HOLDING CAPACITY		Plant-Soil
15:15	De Neve S.	MONITORING IN SITU SOIL NITRATE CONCENTRATIONS USING TIME DOMAIN REFLECTOMETRY (TDR)		
15:30	Domingo F.	SOIL N-NITRATE EVOLUTION FOR RAINFED WHEAT IN NORTHEAST OF CATALONIA (SPAIN)		
15:45	Bona S.	PHYTOEXTRACTION OF HEAVY METALS WITH BRASSICACEAE SPECIES IN CONTAMINATED SOIL		Heavy Metals
16:00	Garcia G.	PHYTOSTABILIZATION OF HEAVY METAL POLLUTED SOILS AS A TOOL FOR AVOIDING RISKS IN SUBSIDIARY AGRICULTURAL LANDS		
16:15	Kuzel S.	PHYSIOLOGICAL EFFECTS OF TITANIUM LEAF SPRAYS ON PLANTS. INTERFERENCE WITH MINERAL NUTRIENTS		
16:30	COFFEE BREAK			
17:00	(SEE FRONT PAGE)			
17:15				
17:30				
17:45				
18:00				
18:15				
21:00	SOCIAL DINNER IN THE OLD WINERY "BODEGAS CAMPOS"			

Thursday, 18 July

8:00

GUIDED VISIT TO THE SURROUNDING FARMING SYSTEMS

16:00

Thursday, 18 July

9:00

WORKSHOP D:
SIMULATION WITH COMPONENT MODELS
(REGISTERED PARTICIPANTS)

17:30