

European Journal of Agronomy

Vol. 101

CONTENTS

NOVEMBER 2018

Review

Impacts of break crops and crop rotations on oilseed rape productivity: A review

H. Hegewald, M. Wensch-Dorendorf, K. Sieling and O. Christen

63

Remotely assessing photosynthetic nitrogen use efficiency with *in situ* hyperspectral remote sensing in winter wheat

H.-Y. Zhang, X.-X. Ren, Y. Zhou, Y.-P. Wu, L. He, Y.-R. Heng, W. Feng and C.-Y. Wang

90

Regular Articles

Crop management adaptations to improve and stabilize crop yields under low-yielding conditions in the Sudan Savanna of West Africa

I. Danso, H. Webber, M. Bourgault, F. Ewert, J.B. Naab and T. Gaiser

1

Simulating rice and maize yield potential in the humid tropical environment of Indonesia

N. Agustiani, N. Deng, J.I.R. Edreira, S.S. Girsang, Syafruddin, T. Sitaresmi, J.M.C. Pasuquin, F. Agus and P. Grassini

10

Can potato add to China's food self-sufficiency? The scope for increasing potato production in China

N. Wang, P. Reidsma, A.A. Pronk, A.J.W. de Wit and M.K. van Ittersum

20

Patterns for improved storability of sugar beet – importance of marc content and damage susceptibility of varieties in different environments

C.M. Hoffmann, M. Leijdekkers, J. Ekelöf and F. Vancutsem

30

Decreased wheat grain yield stimulation by free air CO₂ enrichment under N deficiency is strongly related to decreased radiation use efficiency enhancement

M. Dier, J. Sickora, M. Erbs, H.-J. Weigel, C. Zörb and R. Manderscheid

38

Inter-row hoeing for weed control in organic spring cereals—Influence of inter-row spacing and nitrogen rate

B. Melander, K. Jabran, C. De Notaris, L. Znova, O. Green and J.E. Olesen

49

Identification of high-yield and high-Zn wheat cultivars for overcoming “yield dilution” in dryland cultivation

S. Wang, Z.-H. Wang, S.-s. Li, C.-p. Diao, L. Liu, X.-L. Hui, M. Huang, L.-C. Luo, G. He, H.-b. Cao, R. Yu and S.S. Malhi

57

Growing camelina as a second crop in France: A participatory design approach to produce actionable knowledge

M. Leclère, C. Loyce and M.-H. Jeuffroy

78

Understanding factors associated with the grazing efficiency of perennial ryegrass varieties

N. Byrne, T.J. Gilliland, L. Delaby, D. Cummins and M. O'Donovan

101

Cereal yield gaps across Europe

R. Schils, J.E. Olesen, K.-C. Kersebaum, B. Rijk, M. Oberforster, V. Kalyada, M. Khitrykau, A. Gobin, H. Kirchev, V. Manolova, I. Manolov, M. Trnka, P. Hlavinka, T. Palosuo, P. Peltonen-Sainio, L. Jauhiainen, J. Lorgeou, H. Marrou, N. Danalatos, S. Archontoulis, N. Fodor, J. Spink, P.P. Roggero, S. Bassu, A. Pulina, T. Seehusen, A.K. Uhlen, K. Żyłowska, A. Nieróbca, J. Kozyra, J.V. Silva, B.M. Maçãs, J. Coutinho, V. Ion, J. Takáč, M.I. Mínguez, H. Eckersten, L. Levy, J.M. Herrera, J. Hiltbrunner, O. Kryvobok, O. Kryvoshein, R. Sylvester-Bradley, D. Kindred, C.F.E. Topp, H. Boogaard, H. de Groot, J.P. Lesschen, L. van Bussel, J. Wolf, M. Zijlstra, M.P. van Loon and M.K. van Ittersum

109

Perennial biomass crop establishment, community characteristics, and productivity in the upper US Midwest: Effects of cropping systems seed mixtures and biochar applications C.L. Bonin, R.B. Fidel, C. Banik, D.A. Laird, R. Mitchell and E.A. Heaton		Trajectories of cocoa agroforests and their drivers over time: Lessons from the Cameroonian experience P. Jagoret, H.T. Ngnogue, E. Malézieux and I. Michel	183
Hydrothermal-time-to-event models for seed germination A. Onofri, P. Benincasa, M.B. Mesgaran and C. Ritz	121	A dynamic model with QTL covariables for predicting flowering time of common bean (<i>Phaseolus vulgaris</i>) genotypes D. Wallach, C. Hwang, M.J. Correll, J.W. Jones, K. Boote, G. Hoogenboom, S. Gezan, M. Bhakta and C.E. Vallejos	200
Prospect for increasing grain legume crop production in East Africa M.P. van Loon, N. Deng, P. Grassini, J.I. Rattalino Edreira, E. Wolde-meskel, F. Baijukya, H. Marrou and M.K. van Ittersum	129	Organic amendment effectively recovers soil functionality in degraded vineyards C. Mondini, F. Fornasier, T. Sinicco, P. Sivilotti, F. Gaiotti and D. Mosetti	210
Primary productivity and physiological responses of <i>Vitis vinifera</i> L. cvs. under Free Air Carbon dioxide Enrichment (FACE) Y. Wohlfahrt, J.P. Smith, S. Tittmann, B. Honermeier and M. Stoll	140	Climate change impacts on agro-climatic indices derived from downscaled weather generator scenarios for eastern Denmark S.B. Rasmussen, S. Blenkinsop, A. Burton, P. Abrahamsen, P.E. Holm and S. Hansen	222
Improving regional winter wheat yield estimation through assimilation of phenology and leaf area index from remote sensing data Y. Chen, Z. Zhang and F. Tao	149	The effect of seeding rate on radiation interception, grain yield and grain quality of autumn sown oats J.M. Finnan, L. Hyland and B. Burke	239
Delayed and reduced nitrogen fertilization strategies decrease nitrogen losses while still achieving high yields and high grain quality in malting barley D. Beillouin, R. Trépos, A. Gauffreteau and M.-H. Jeuffroy	163	Identifying precipitation uncertainty in crop modelling using Bayesian total error analysis X. Huang, S. Ni, C. Yu, J. Hall, C. Zorn and X. Huang	248
		Short Communications	
	174	Plant density in red clover (<i>Trifolium pratense</i> L.) pastures as an early predictor of forage production R. Zarza, M. Rebuffo, A. La Manna and M. Balzarini	193