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RECUEIL DES RÉSUMÉS

PROCEEDINGS



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taux de croissance varie entre 1.61 à 0.99 a_w et 3.44 mm/jour à 0.90 a_w. Pour réduire le taux de croissance et par là le risque de production de l'OTA par cette souche, une réduction de la T° s'avère indispensable. La réduction de l'activité de l'eau, technique utilisée pour la préservation des denrées alimentaires, ne mène pas toujours à une diminution de la croissance d'isolats ochratoxinogènes. **Mots clés** : *A. niger*, taux de croissance, température, activité de l'eau

Endophytes de plantes halophytes pour la modulation du stress salin chez les Solanacées
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50 endophytic isolates from spontaneous plants of saline areas of Algeria were studied for their potential to promote plant growth by focusing on the characterization of PGPR direct mechanisms at first, that is: production of auxin-type phytohormones (Indole acetic acid, AIA), afterward, indirect PGPR mechanisms as antagonist activity against phytopathogens (5 target germs), the production of antifungal enzymes, while interested in their ability to grow in a medium mimicking poor soil conditions (LB 1/10 supplemented with soil extract). These matters, made subsequently the subject of a phylogenetic study to investigate their taxonomic positions, focusing on the sequence of the 16S rDNA of each strain, confirming their mainly membership to the Bacillaceae family whose species have already been described for their effectiveness on field as inoculums for crop yields improving. The results suggests the strains B2, B40 and B45 as interesting bacterial candidates for a future use as biofertilizers.

Keywords: PGPR; endophytic, AIA, antagonistic activity, 16S rDNA, biofertilizers

Towards identification of novel legume species of potential interest as cover crops and living mulches for the North Africa region

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Subsidiary crops (SC) grown either as cover crops (CC) preceding or following the main crops, or as living mulches (LM) together with the main crops can deliver multiple ecological services within farming systems. These include increasing the duration of soil cover in the rotation, increasing plant and microbial diversity,

improving plant health, soil health and fertility, minimizing the use of tillage and agrochemicals, enhancing biological N fixation and soil C content, and reducing water demand in dry climates. However, species available for growing as SC for dry areas are limited. To identify species of potential interest to CC and LM, we screened 197 accessions from the ICARDA genebank, belonging to 142 species/sub-species at Rabat, Morocco in one square meter plots. The preliminary assessments based on visual observations enabled us to identify: (1) 21 accessions belonging to *Medicago* and *Trifolium* species with prostrate growth habit, early maturity and senescence, determinate growth cycle and good potential for seed production, as potentially suitable for LM; and (2) 28 accessions belonging to *Vicia*, *Lathyrus*, *Medicago* and *Trifolium* species with high biomass and competitive ability, and also good potential for seed production, as potentially suitable for CC or green manure crops. Further evaluations in replicated trials are in progress. The selected accessions have been planted in the field during autumn 2013 at Sidi El Aidi.

Key words: Subsidiary crops, cover crops, living mulches

Improving a Moroccan wheat cultivar 'Aguilal' for resistance to leaf and yellow rust and quality

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There are several markers linked to the agronomic traits of interest in wheat. Utilization of these markers in marker assisted selection (MAS) can greatly enhances the genetic improvement. Moroccan cultivar Aguilal is very well adapted to semi-arid regions and has resistance to the Hessian fly and stem rust. However, it is susceptible to leaf and yellow rusts. In order to improve leaf and yellow rust resistance and quality traits of Aguilal, it was crossed with Australian line 'Annuello' having resistance to leaf and yellow rusts and good quality. The resulting F1 were grown under greenhouse condition and haploids were produced using anther culture and maize hybridization techniques. These haploids were screened with molecular markers linked to leaf (Lr34, Lr24) and yellow rust (Yr18) resistance, stem rust resistance (Sr2, Sr24), the Hessian fly resistance (H22), quality traits (GluA3). The selected plants were diploidized using colchicine. The selected double haploids are being multiplied for seed increase and will be screened under field condition for validation.

Keywords: Wheat, double haploid, MAS, quality, rust resistance, single cross