

**Titre du document / Document title**

Intravarietal level of aluminum resistance in cereal crops

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**Résumé / Abstract**

The relative growth parameters of seedlings of some oat (*Avena sativa* L.) and barley (*Hordeum vulgare* L.) varieties from different intravarietal seed fractions in the absence or presence of 1-2 mM aluminum (Al) sulfate were investigated in several experiments using the solution-paper culture technique. There were statistically significant differences in Al-resistance level of seeds, which differ by its weight, place on ear, place, and year of reproduction and rate of germination. The data suggest that the level of Al resistance/susceptibility is not determined by genotype exactly, but may be modified by some endogenous chemical and biochemical factors (for example, content of seed storage proteins, inhibitors of germination, natural plant growth regulators, etc.). Such nonuniformity of seeds within cultivars may be used for investigation of plant Al-resistance mechanisms.

**Revue / Journal Title**

Journal of plant nutrition ISSN 0190-4167 CODEN JPNUDS

**Source / Source**

2000, vol. 23, n°6, pp. 793-804 (2 p.1/4)

**Langue / Language**

Anglais

**Editeur / Publisher**

Taylor & Francis, Philadelphia, NJ, ETATS-UNIS (1979) (Revue)

**Mots-clés anglais / English Keywords**

Sensitivity resistance ; Tolerance ; Intraspecific comparison ; Phytotoxicity ; Seeds ; Chemical composition ; *Avena sativa* ; *Hordeum vulgare* ; Aluminium ; Storage protein ; Plant growth substance ; Gramineae ; Monocotyledones ; Angiospermae ; Spermatophyta ; Cereal crop ;

**Mots-clés français / French Keywords**

Sensibilité résistance ; Tolérance ; Comparaison intraspécifique ; Phytotoxicité ; Graine ; Composition chimique ; *Avena sativa* ; *Hordeum vulgare* ; Aluminium ; Protéine réserve ; Substance croissance végétal ; Gramineae ; Monocotyledones ; Angiospermae ; Spermatophyta ; Plante céréalière ;

**Mots-clés espagnols / Spanish Keywords**

Sensibilidad resistencia ; Tolerancia ; Comparación intraespecífica ; Fitotoxicidad ; Semillas ; Composición química ; *Avena sativa* ; *Hordeum vulgare* ; Aluminio ; Proteína reserva ; Substancia crecimiento vegetal ; Gramineae ; Monocotyledones ; Angiospermae ; Spermatophyta ; Planta cerealista ;

**Localisation / Location**

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