

Epicuticular Waxes from Seeds of Uruguayan Grasses

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RESUMEN. "Ceras epicuticulares de semillas de pastos uruguayos". Se describen los componentes principales de las ceras de semillas de *Piptochætium panicoides* y *Echinocloa cruspavonis*. Estas contienen hidrocarburos, ésteres, ácidos y alcoholes grasos libres.

SUMMARY. The main components in *Piptochætium panicoides* and *Echinocloa cruspavonis* seed-waxes are described. They include hydrocarbons, esters, free acids and free alcohols.

INTRODUCCION

Piptochætium panicoides f. *subpapillosum* (Hackel.) Parodi and *Echinocloa cruspavonis* (HBK) Schult. are native grasses from Uruguay. *P. panicoides* is a perennial member of Tribe Stipeae, which grows in coastal dunes and seeds in the late spring¹. *E. cruspavonis* of Tribe Paniceae is an annual which grows in damp soils, being invasive in local rice plantations, and seeding in early Autumn¹. The composition of their seed waxes was analysed to establish their relationship to other grass seed-waxes²⁻⁶.

RESULTS AND DISCUSSION

The wax in *P. panicoides* represents 0.6% of the dry weight of the seeds, while for *E. cruspavonis* the figure is 0.4%. By a combination of preparative

TLC and GC methods^{4, 5} the waxes were separated into fractions as is shown in Table I. The composition of these fractions was determined and is shown in Tables II and III.

No clear taxonomic patterns seem to arise from the data so far collected for Gramineae and seed-wax compositions²⁻⁶. On the other hand there seems to be one between seed maturation season and total wax content, which is higher for summer seeding species. The more usual hydrocarbons for seed waxes are C 29 and C 31, as is the case for leaf waxes⁷. In the seed wax esters the more common acids range from C 16 to C 22, while the alcohols are C 22 to C 28. The free alcohols are usually higher homologues (C 28 and C 30) and the free acids have no clearly defined range of components.

PALABRAS CLAVE: Gramineae; *Piptochætium panicoides*; *Echinocloa cruspavonis*; Ceras de Semillas; Hidrocarburos; Esteres; Acidos libres; Alcoholes libres.

KEY WORDS: Gramineae; *Piptochætium panicoides*; *Echinocloa cruspavonis*; Seed-waxes; Hydrocarbons; Esters; Free acids; Free Alcohols.