

(10)

3rd European Ecological Symposium

22 — 26 August 1983

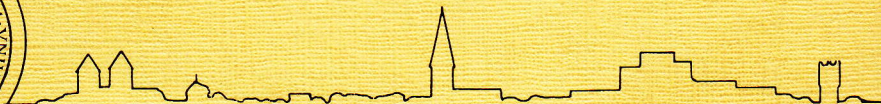
Lund, Sweden

PROGRAM

Abstracts

Participants

General information



Factors determining the colonization of plants by cereal aphids.

J. Piechota and K. Walters, Institute of Zoology PAN, Warsaw, Poland, and School of Biological Sciences UEA, Norwich, England.

The authors have observed the colonization of 12 winter wheat varieties by migrants of the English grain aphid Sitobion avenae F. in the field. The colonization started near 24-26 May. Duration of the colonization period depended on meteorological conditions.

The first wave of migrants dispersed randomly or with tendency to regularity among varieties of wheat but later the pattern became more aggregated. Within the varieties migrants preferred plants with higher level of nitrate nitrogen and amide nitrogen.

Migrants differed in activity and fecundity on different varieties. Amine and nitrate nitrogen contents influenced activity of migrants. Fecundity

was correlated with amine nitrogen content. Morphology of varieties, growth stages and dry weight content did not influence preference of migrants. The next wave of migrants was not randomly distributed. The authors observed an aggragation of migrants near aphids which settled earlier.