

# BIO-AGRONOMICAL BEHAVIOUR AND SEED COMPOSITION OF SOME APIACEAE GROWN IN A MEDITERRANEAN SEMI-ARID ENVIRONMENT

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## Summary

The *Apiaceae* family is extremely rich in genera and species, and many of them are largely widespread inside the Mediterranean flora, where they cover about 8% of the total number of species considered to have medicinal and/or aromatic properties (Bruno et al, 1960). As a matter of fact, many of them are traditionally used in Sicilian cookery and herbal medicine. A recent literature has proposed for these species many other “alternative” industrial uses, furthermore expanding the interest in their cultivation. Notwithstanding, little information is available about their possibility to be cultivated on a large scale inside the Mediterranean semi-arid environments, and even less is available about their bio-agronomical and chemical characterization in these areas. This work reports the results of a poliannual research activity about the suitability to field conditions and the major chemical traits of some *Apiaceae* (*Anethum vulgare* L., *Ridolfia segetum* Moris, *Foeniculum vulgare* Mill. and *Coriandrum sativum* L.). The trials have been performed in Sparacia (Cammarata –AG – Sicily; 37° 38’ N; 13° 46’ E), a representative area of the Mediterranean semi-arid environments, in the period 1999-2002. The crops have been directly sown in rows 50 cm apart, and the main biometrical and yield characters have been collected (height of plants at various development stages, time of occurrence of the different phenological phases, number and weight of seeds/plant, seeds yield for unit area). The chemical composition of the seeds obtained has also been evaluated. *Coriandrum sativum* and *Foeniculum vulgare* showed the overall best yield performance; *Ridolfia segetum*, taken into consideration because of its frequent use as a substitute for *Anethum graveolens*, with which is often confused, confirmed a substantial difference from it as concerns chemical seeds composition, but also a strong suitability to field conditions.

Bruno, F.; Di Martino, G.; Bonomo, F., 1960. Le piante officinali spontanee della Sicilia e dell’arcipelago delle Pelagie. Lav. Ist. Bot. e Giard. Colon. di Palermo, XVII: 131-251.