

12. LITERATURE

- ANDERSON, R.H., B. BUYS & M.F. JOHANNSMEIERS. 1983. Beekeeping in South Africa. Department of Agriculture, Bulletin 394. Government Printer, Pretoria. 207 pp.
- ANNECKE, D.P. & V.C. MORAN. 1982. Insects and mites of cultivated plants in South Africa. Butterworths, Durban. 383 pp.
- ARNASON, A.P. 1966. Recent studies in Canada of crop pollination by insects. Bee World 47 Supplementary: 107-124.
- BENEDEK, P., S. MANNINGER & B. NAGY. 1972. The number of colonies and the density of honeybees in sunflower fields in relation to the pollination of the crop. Zeitschrift für angewandte Entomologie 71: 385-389.
- BEUTLER, RUTH. 1953. Nectar. Bee World 34: 106-116, 128-136, 156-162.
- BIRCH, E.B. 1981. Some factors effecting seed set of sunflower. Crop Production 10: 22-26.
- BIRCH, E.B. 1982. Sunflower pollination research. Unpublished report to the Director, Plant Protection Research Institute. 2 pp.
- BIRCH, E.B. & W.T. ENGELBRECHT. 1978. String nuwe sonneblombasters. Oilseeds News February: 4-6.
- BIRCH, E.B., J.C. VAN DER SANDT, J.M. HERRMANN, & M.F. JOHANNSMEIERS. 1985. Bee pollination of sunflower. Proceedings of the 11th International Sunflower Conference, 10-13 March 1985, Mar del Plata, Argentina: 255-260.
- BROWN, L.M. & F.D. PARKER. 1984. Tracking the sunflower bees. Utah Science Summer:40-43.
- BURMISTOV, A.N. 1965. The melliferous value of some sunflower varieties. Proceedings of the 20th International Beekeeping Jubilee Congress, 26-31 August 1965, Bucharest, Romania: 320-323.

- CIRNU, I., V. DUMITRANCHE & E. HOCIOTA. 1974. La pollinisation du tournesol (Helianthus annuus L.) a paide des abeilles - un facteur important pour l'augmentation de la production. Proceedings of the 6th International Sunflower Conference, 22-24 July 1974, Bucharest Romania: 695-700.
- COCKERELL, T.D.A. 1914. Bees visiting Helianthus. Canadian Entomologist 46: 409-415.
- DESHMUKH, S.D. 1977. Effects of bee visits and climate on sunflower pollination. Science and Culture 43: 543-545.
- DIEZ, SARA L. 1979. Comparative trials of pollination of sunflower (Helianthus annuus) by honeybees (Apis mellifera) - in individually isolated flower heads and in caged plots. Proceedings of the 27th International Congress of Apiculture, 14-20 September 1979, Athens Greece: 407-411.
- DU TOIT, A.P. 1987. Honeybees as pollinators of commercial sunflower. South African Bee Journal 59: 126-128.
- ETIEVANT, P.X., M. AZAR, M.H. PHAM-DELEQUE & C.J. MASSON. 1984. Isolation and identification of volatile constituents of sunflowers (Helianthus annuus L.). Journal of Agriculture Food Chemistry 32: 503-509.
- FAEGRI, K. & L. VAN DER PIJL. 1979. The principles of pollination ecology. 3rd. rev. ed. Pergamon Press, Oxford. 244 pp.
- FLETCHER, D.J.C. 1978. The African bee, Apis mellifera adansonii, in Africa. Annual Review of Entomology 23: 151-171.
- FREE, J.B. 1964. The behaviour of honeybees on sunflowers (Helianthus annuus L.). Journal of Applied Ecology 1: 19-27.
- FREE, J.B. 1970. Insect pollination of crops. Academic Press, London. 544 pp.
- FREE, J.B. & J. SIMPSON. 1964. The pollination requirements of sunflowers (Helianthus annuus L.). Empire Journal of Experimental Agriculture 32: 340-342.

- FREUD, D.E. & B. FURGALA. 1982. Effect of pollination by insects on the seed set and yield of ten oilseed sunflower cultivars. American Bee Journal 122: 648-652.
- FURGALA, B. 1954. Honeybees increase seed yields of cultivated sunflowers. Gleanings in Bee Culture 82: 532-534.
- FURGALA, B., E.C. MUSSEN, D.M. NOETZEL & R.G. ROBINSON. 1976. Observations on nectar secretion in sunflowers. Proceedings of a Sunflower Forum, Fargo, North Dakota 1: 11-12.
- FURGALA, B., D.M. NOETZEL, & R.G. ROBINSON. 1978. Observations on the pollination of hybrid sunflowers. Proceedings of the 4th International Symposium on Pollination, 11-13 October, Maryland: 45-48.
- GOEL, S.C. & A. KUMAR. 1981. Population aggregate of Melipona irridipens Smith (Apidae) on sunflower. Indian Journal of Horticulture 38: 125-128.
- GOYAL, N.P. & A.S. ATWAL. 1973. Role of honey bees in sunflower pollination. Indian Bee Journal 35: 40-47.
- HEISER, C.B. Jr. 1955. The origin and development of the cultivated sunflower. The American Biology Teacher 17: 161-167.
- HERRING, M.F. 1981. Factors effecting seed set in sunflowers. Oilseeds News September: 16-17, 20-21.
- HURD, P.D. 1978. An annotated catalog of the Carpenter bees (Genus Xylocopa Latreille) of the western Hemisphere (Hymenoptera : Anthophoridae). Smithsonian Institution Press, Washington. 270 pp.
- HURD, P.D., W.E. LA BERGE, & E.G. LINSLEY. 1980. Principal sunflower bees of North America with emphasis on the Southwestern United States (Hymenoptera : Apoidea). Smithsonian Contributions to Zoology 310: 158 pp.
- JAIN, K.K., D.P. VAISH, H.K. GUPTA, & S.S. MATHUR. 1978. Studies on hollow seedness in sunflower. Proceedings of the 8th International Sunflower Conference, 23-27 July, Minneapolis, Minnesota: 138-146

- JOHANNSMEIERS, M.F. 1984. Sunflower honey. South African Bee Journal 56: 10-12.
- JOHANNSMEIERS, M.F. (in press). Evaluating bee forage. South African Bee Journal.
- KEVAN, P.G. 1983. Insects as flower visitors and pollinators. Annual Review of Entomology 28: 407-453.
- KHADIKAR, B.T. & A.G. MAHAJAN. 1974. The problem of seed filling and setting in sunflower (Helianthus annuus L.). Pakistanian K. V. Research Journal: 118-120.
- KHANNA, K.R. 1972. Factors effecting the production of filled seeds in sunflower. Euphytica 21: 384-387.
- KLEINSCHMIDT, G. 1986. Insect pollination requirements of field-grown sunflowers. Australian Sunflower Autumn: 2-3.
- KLEINSCHMIDT, G. & J. HARDEN. 1983. Pollination and production. Australian Sunflower 7: 24-25.
- KRAUSE, G.L. & W.T. WILSON. 1981. Honeybee pollination and visitation patterns on hybrid oilseed sunflowers in Central Wyoming (Hymenoptera : Apoidea). Journal of the Kansas Entomological Society 54: 75-82.
- LANGRIDGE, D.F. & R.D. GOODMAN. 1974. A study on pollination of sunflowers (Helianthus annuus). Australian Journal of Experimental Agriculture and Animal Husbandry 14: 201-204.
- LEVIN, M.D. & G.D. BUTLER (JR). 1966. Bees associated with safflower in South Central Arizona. Journal of Economic Entomology 59: 654-657.
- LEWIS, D. 1979. Sexual incompatibility in plants. Edward Arnold, London. 59 pp.
- LINDAUER, M. 1955. The water economy and temperature regulation of the honeybee colony. Bee World 36: 62-72, 81-92, 105-111.
- MCGREGOR, S.E. 1976. Insect pollination of cultivated crop plants. Agricultural Handbook 496. Agricultural Research Service, U.S. Department of Agriculture, Washington. 411 pp.

- PALMER-JONES, T. & I.W. FORSTER. 1975. Observations on the pollination of sunflowers. New Zealand Journal of Experimental Agriculture 3: 95-97.
- PARKER, F.D. 1981. Sunflower pollination : abundance, diversity and seasonality of bees and their effect on seed yields. Journal of Apicultural Research 20: 49-61.
- PARKER, F.D. & D.R. FROHLICH. 1983. Hybrid sunflower pollination by a manageable Compositae specialist : The sunflower leafcutter-bee (Hymenoptera : Megachilidae). Environmental Entomology 12: 576-581.
- PUTT, E.D. 1940. Observations on morphological characters and flowering processes in the sunflower (Helianthus annuus). Scientific Agriculture 21: 167.
- RADAEVA, E.N. 1954. [Bee pollination increases the yield of sunflower seeds (Helianthus annuus)]. Pchelovodstvo 2: 33-38. (In Russian) Apicultural Abstract 156/56.
- RADFORD, B.J. & J.W. RHODES. 1978. Effect of honeybee activity on the cross-pollination of male-sterile sunflowers. Queensland Journal of Agriculture and Animal Science 35: 153-157.
- RADFORD, B.J., R.G.H. NIELSON & J.W. RHODES. 1979a. Agents of pollination in sunflower crops on the central Darling Downs, Queensland. Australian Journal of Experimental Agriculture and Animal Husbandry 19: 565-569.
- RADFORD, B.J., R.G.H. NIELSON & J.W. RHODES. 1979b. Populations of honeybees pollinating sunflower crops on the central Darling Downs, Queensland. Australian Journal of Experimental Agriculture and Animal Husbandry 19: 716-718.
- ROBINSON, R.G. 1978. Production and culture. pp. 89-143. In: G.F. Carter (ed.). Sunflower science and technology No. 19 Series Agronomy. American Society of Agronomy, Madison, Wisconsin.
- RUTTNER, F. 1973. Zuchttechnik und Zuchtauslese bei der Biene. Ehrenwirth Verlag, München. 130 pp.

- RUTTNER, F., L. TASSENCOURT & J. LAUVEAUX. 1978. Biometrical-statistical analyses of the geographic variability of Apis mellifera L. I. Material and methods. Apidologie 9: 363-381.
- SHEIN, S.E., S.J. SARGENT & J. MIKO. 1980. An evaluation of differential attractiveness of sunflower genotypes to honeybees. Proceedings of the 9th International Sunflower Conference, Torremolinos, Spain: 216-220.
- TEPEDINO, V.J., & F.D. PARKER. 1981. The effect of flower occupancy on the foraging of flower-visiting insects. Psyche 88: 321-329.
- THORP, W. & D.L. BRIGGS. 1980. Bees collecting pollen from other bees (Hymenoptera: Apoidea). Journal of the Kansas Entomological Society 53: 166-170.
- VAN ARK, H. 1981. Eenvoudige biometriese tegnieke en proefontwerpe met spesiale verwysing na entomologiese navorsing. Wetenskaplike Pamflet. Departement van Landbou en Visserye Republiek van Suid Afrika No. 396: 117 pp.
- VAN ZYL, J.D. 1985. Bemarking van oliesade - toekomsblik ten opsigte van sonneblomsaad. Oilseeds News December: 4-5.
- VANSELL, G.A. 1934. Relations between the nectar concentrations in fruit blossoms and the visits of honeybees. Journal of Economic Entomology 27: 943-945.
- WATMOUGH, R.H. 1987. A leaf-cutter bee (Megachilidae) and a carpenter bee (Anthophoridae) as possible pollinators of lucerne (Medicago sativa L.) in the Oudtshoorn district. South African Bee Journal 59: 114.
- WEATHER BUREAU. 1970-1977. Report on Meteorological Data. Department of Transport, Government Printer, Pretoria.
- WEATHER BUREAU. 1978-1985. Monthly Weather Report. Department of Transport, Government Printer, Pretoria.
- WILSON, E.O. 1971. The insect societies. Harvard University Press, Massachusetts. 548 pp.

WINSTON, M.L. 1979. The proboscis of the long-tongue bees: A comparative study. University of Kansas Science Bulletin 51: 631-667.

SUNFLOWER (HELIANTHUS ANNUUS)

Species	Settlers	Pretoria	Hartbeesfontein
ORTHOPTERA			
Tettigoniidae	(1 sp.)	-	-
Acridoidae	1 sp.	1 sp.	-
PHASMATODEA			
Phasmatidae	(1 sp.)	-	-
HANTODEA			
	-	1 sp.	-
HEMIPTERA			
Reduviidae	-	-	1 sp.
Coridae	1 sp.	1 sp.	-
Pyrhocoridae	1 sp.	-	1 sp.
Lygaeidae	2 spp.	2 spp.	2 spp.
Cercopidae	1 sp.	-	-
Cicadellidae	2 spp.	1 sp.	2 spp.
Aphididae	-	1 sp.	-
NEUROPTERA			
Chrysopidae	1 sp.	-	-
COLEOPTERA			
Scarabaeidae:			
Cetoniinae	1 sp.	1 sp.	1 sp.
Lycidae	-	1 sp.	-
Melyridae:			
<u>Anisus atromaculatus</u>	1 sp.	1 sp.	1 sp.