facing sunflower production can be overcome by increasing the genetic variability of the cultivated sunflower by using wild sunflower species for interspecific hybridization.

Breeding for yield components, disease, insect and drought resistance, salt tolerance, oil quality and herbicide resistance require increased utilization of wild species of the genus *Helianthus*.

Indo-UK Collaboration on Oilseeds–Towards Improving the Genetic Base of Rapeseed-Mustard in India

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The key factors to increased production are the evaluation of a wide range of genotypes under appropriate testing environments. Genetic enhancement will continue to be an exciting and important dimension for the improvement of cropping systems and will certainly contribute to the sustainability of crop production in the future.

Indo-UK Collaboration (Phase II) on Oilseed Crops (Rapeseed-Mustard) is an 8-year project started in 1998, which follows on from a successful phase-I project (1991-1998). Phase I was collaboration between Rothamsted Research (UK) and GB Pant University of Agriculture and Technology–Pantnagar (GBPUAT). Rothamsted Research is implementing phase-II under the umbrella of the Indian Council of Agricultural Research in collaboration with the National Research Centre on Rapeseed-Mustard (Bharatpur), The Energy and Resources Institute (New Delhi) and GBPUAT-Pantnagar. Phase-I focused on resistance to downy mildew, whereas phase-II is focusing on; a) developing resistance to white rust and Alternaria blight diseases, b) develop rapeseed-mustard crops in 15 districts across seven states in India through farmers participatory research as well as rural livelihoods development.

A range of accessions, which included breeding lines developed at Rothamsted Research with wide differential resistant profile to *Phytophthora parasitica*, were given to GBPUAT-Pantnagar through the National Bureau of Plant Genetic Resources (New Delhi) for adaptation, evaluation and further selection. These included 54 accessions of *Brassica napus*, 52 of *B. juncea* and 23 of *B. rapa*. Two accessions of *B. napus* code named EC 338986-2 and EC 338996-1, maintained high resistance to downy mildew and white rust as well as tolerance to *Alternaria* blight and *Seclerotinia* stem rot, whereas EC 339000 stood out as relatively early maturing with high yield, particularly n the hilly regions like Kangra (Himachal Pradesh) and RS Pura (Jammu & Kashmir) and had more yield than the national check (GSL-1). Four accessions of *B. juncea*, EC 399296, EC 399299, EC 399301 and EC 399313 appeared to be almost free from downy mildew, white rust and *Seclerotinia* as well as tolerant to *Alternaria* blight diseases. Moreover, two more accessions of *B. juncea*, EC 414308 (code named NRCR-837) and EC 414319 (code named NRCR-836) were evaluated in initial variety trial (IVT) and found to be tolerant to downy mildew, white rust and *Sclerotinia* stem rot. EC 414308 was promoted to advanced variety trial -1 (AVT-1). EC 399301 has been extensively utilized in the breeding programme.