

Department of Biotechnology
Ministry of Science & Technology
Govt. of India

Call for Pre-proposals on Accelerated domestication of under-utilized crops

Food security is a complex issue with many facets and attempts to increase global food security faces a number of complex and interlinking challenges. Even though agricultural productivity has witnessed a significant increase in the second half of the twentieth century, it has led to a reduction in the natural resource base including diversity of species used for food. Addressing the concerns of narrow agricultural portfolio requires that we broaden the focus of research and development to include a much wider range of crop species. However, limited information describing basic aspects of their genetics, physiology, agronomy, fertilizer requirements etc. remains a hindrance to their development and promotion.

The increased demand for food production and dwindling of some important neglected crops necessitated an urgent attention towards the issues covering this area. Six major underutilized crops i.e.; Chenopodium, Grain Amaranth, Rice bean, Buckwheat, Foxtail millet and Proso millet have been identified for further call. The issues concerning each of the crops have been discussed, and further following interventions have been proposed.

-) Germplasm evolution
-) Development of core germplasm to prepare association panels.
-) To develop resources in the form of markers based on contrasting traits.
-) To prepare genetic maps and define QTLs for the traits which are important for each crop (Eg: shattering, lodging, seed size, indeterminate nature) apart from yield and nutrition.
-) Genomic sequencing/ resequencing and identification of genes responsible for the QTL effect.
-) Generation of artificial variability by making TILLING populations.

Department of Biotechnology is inviting Pre-proposals/Concept notes from Scientists working in Indian research institutes/universities in the above mentioned areas.

The Pre-proposals/Concept notes should be restricted to 4-5 pages defining (a) clear cut objectives, (b) work plan (c) expected outcome (d) biodata of the investigator/s giving details regarding the expertise along-with the list of research papers in the proposed research area and (e) tentative budget estimates.

The Concept notes/Pre-proposals will be examined by expert committee and PI's of the shortlisted concepts will be asked to submit their detailed proposals for further consideration.

Interested scientists may submit five hard copies of the Pre-proposal/Concept Note to **Dr. Meenakshi Munshi**, Director, Room No 705, Department of Biotechnology, Block-2, CGO Complex, Lodhi Road, New Delhi 110003 latest by **15th June, 2016**. Soft copy of the same may also be submitted through an email: meenakshi29.dbt@nic.in, Ph: 011-24361035.