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## Consultancy and Advisory Services

Advisory services for researchers in NARS were pursued rigorously and various training programmes were conducted as consultancy (details given in Chapter 6).

### Advisory Services Provided

- **Dr. Madhuban Gopal, National Fellow, Division of Agricultural Chemicals, IARI, New Delhi**  
Advised on the analysis of data pertaining to the experiment conducted to test the effect of 20 chemicals each with 6 different concentrations on the root length and shoot length of plants. In this experiment, each of the treatment combinations were replicated twice. Best treatment combination were identified through one way classified ANOVA followed by Tukey's Honest Significant Difference test for making all possible pairwise treatment comparisons.
- **Board of Revenue for Rajasthan, Ajmer, Rajasthan**  
Provided technical guidance regarding the problems faced in estimation of number of fruits for Rajasthan State. Data analysis of the data obtained from Board of Revenue for Rajasthan, Ajmer was done for one tehsil of Shriganganagar district of Rajasthan and estimate of number of fruits along with percentage standard error was obtained by adopting two different estimation procedures.
- **Assistant Director, National Sample Survey Organisation (Field Operation Division), Ministry of Statistics and Programme Implementation, Faridabad**  
A document on Methodology on estimation of area and production of fruits and vegetables was prepared and sent to Commissioner, Land Records & Settlements, Gwalior, Madhya Pradesh.
- **Priya Shekhawat, Ph.D. student from Rajasthan Agricultural University, Bikaner**  
Advised on the analysis of data pertaining to an experiment on Genetic Characterization and Diversity Study of Rathi and Tharparkar Cattle Breeds of Rajasthan conducted to select a suitable set of microsatellite markers for determining genetic diversity in two indigenous cattle breeds viz. Rathi and Tharparkar and to characterize the breeds on the basis of microsatellite markers. She was advised on computation of heterozygosity and polymorphism information content using allele frequency data.
- **Ministry of Health & Family Welfare for pooling Annual Health Survey (AHS)**  
Advised on pooling of District Level Health Survey data for arriving the estimate at the national level.

- **Scientist from NBPGR, New Delhi**  
Advised on the procedure of estimation of heritability when the experiment was laid out using Augmented design. For this variance components estimation procedure developed by Parsad *et al.* (2003, Project Report, IASRI) was used.
- **Dr. Subhadra Singh, Senior Scientist, Department of Genetics, CCS HAU, Hisar**  
Advised on the analysis of data pertaining to an experiment conducted using  $\alpha$ -design with parameters  $v = 105$ ,  $b = 30$ ,  $r = 2$ ,  $k = 7$  for evaluating 105 RILs of wheat crop.
- **Dr. Ravinder Kaur, National Fellow, Division of Agricultural Sciences, IARI, New Delhi**  
Advised on the analysis of data for one way and two-way analysis of variance followed by multiple

comparison procedure using Tukey's Honest Significant Difference test.

#### **Projects undertaken in Consultancy Mode**

- Consultancy study on Prioritization of rainfed area in the country in collaboration with CRIDA, Hyderabad funded by National Rainfed Area Authority (NRAA), Ministry of Agriculture, Government of India. The aim of the study is to develop integrated index based on resource availability, agriculture and livestock production systems, socio-economic parameters with livelihood perspective which is to be used for prioritization of rainfed area. IASRI was engaged in development of socio economic and livelihood indices.