

Mahima Research Foundation and Social welfare
194, Karaundi, BHU, Varanasi-221005

Annual Report of Financial Year 2014-2015

Annual meeting of the Mahima Research Foundation and Social welfare was held on 5th April 2015. The detail activities of the financial year 2014-2015 were discussed with the participants due the meeting.

Mahima Research Foundation and Social Welfare, 194, Karaundi, BHU, Varanasi conducted a “**Jaiwik Kranti Rally**”, 22 April, 2014 on Celebration of Earth Day from BHU Gate, Sankat Mochan, Durga Mandir, Durgakund, Bhelupur Chauraha and Rani Laxmi Bai Maidan, partially sponsored by Ministry of Earth Sciences, Govt. of India, New Delhi. It was inaugurated by **Prof. Ravi P. Singh**, Director, Institute of Agricultural Sciences, Banaras Hindu University, Varanasi. In all 437 Participants, teachers, students and farmers participated in this Rally.

On 18th October 2014, the foundation organized two day **International Conference on “Recent Advances on the Role of Basic Sciences in Ayurvedic Medicine (ICRARBSAM)”** on **18-19 October 2014** at S.V.D.V. Auditorium, Banaras Hindu University, Varanasi,” partially sponsored by Indian Council of Medical Research (ICMR), Department of Biotechnology (DBT), DRDO, Council of Scientific Industrial Research (CSIR) and Indian National Science Academy (INSA), Govt. of India, New Delhi. It was inaugurated by **Dr K. Satyanarayana**, Deputy Director-General, Department of Health Research, ICMR, New Delhi. 250 Participants, teachers, students and Scientists participated in this International Conference.

On 15th November 2014, the foundation organized two day **International Conference on “Novel Innovations and Strategies for Boosting Production and Productivity in Agriculture (ICNISBPPA)”** on **15-16 November, 2014** at Seminar Hall, Institute of Agricultural Sciences, Banaras Hindu University, Varanasi, partially sponsored by Indian Council of Agricultural Research (ICAR), Ministry of Earth Sciences (MEOS), Department of Sciences and Technology (DST), Indian Council of Medical Research (ICMR) and Department of Biotechnology (DBT), Govt. of India, New Delhi. It was inaugurated by **Prof. S.S. Kushwaha**, Former Vice Chancellor, Mahatma Gandhi Kashi Vidyapith and Ranchi University. 265 Participants, teachers, students, Scientists and farmers participated in this International Conference.

On 1st February 2015, the foundation organized the “Farmers Gosthi” at Narsada village, Varanasi. In this Gosthi Dr. P.K. Sharma said that Organic Agriculture has grown out of the conscious efforts by inspired people to create the best possible relationship between the earth and men. Since its beginning the sphere surrounding organic agriculture has become considerably more complex. A major challenge today is certainly its entry into the policy making arena; its entry into anonymous global market and the transformation of organic products into commodities. During the last two decades, there has also been a significant sensitization of the global community towards environmental preservation and assuring of food quality. Ardent promoters of organic farming consider that it can meet both these demands and become the means for complete development of rural areas. After almost a century of neglect, organic agriculture is now finding place in the mainstream of development and shows great promise commercially, socially and environmentally. While there is continuum of thought from earlier days to the present, the modern organic movement is radically different from its original form. It now has environmental sustainability and

productivity at its core, in addition to the founders concerns for healthy soil, healthy food and healthy people.

Dr. S.K. Sahi said that Indeed, under the conditions of growing population and increase of agricultural production, it is impossible to do agribusiness without the use of elements of precision farming and other technologies that allow to minimize resource and material costs and improve the efficiency of agriculture. "The main criteria for the successful doing of agribusiness are financial and economic indicators. Therefore, for effective farm management under today's conditions, the innovative technologies are needed to ensure not only the increase of yield productivity but also optimizing production costs.

Ratnesh Kumar Rao, Secretary, Mahima Research Foundation and Social Welfare said that increasing agricultural productivity in India thus calls for broader policy and strategic frameworks that encompass agro-industrial and agribusiness services along with farming. The agricultural system's transformation will have the most impact when innovators have the explicit perspective that the green revolution and agro-industrial and agribusiness development must go hand-in-hand. This perspective will result in innovations that reduce poverty through broad-based economic growth, which includes enhanced food security, employment creation, and added value and wealth across the economy's farming and non-farming sectors.

On 8th February 2015, the foundation organized the "**Farmers Workshop**" of pulse crop cultivation at Primary School, Shihorawa, Varanasi. Prof. R.C. Gupta said that pulses play an important role in the food and farming economy of our country. Considering their limited input requirements, soil-enriching properties and suitability for growing in areas where moisture is limited, pulses occupy a unique place in our agriculture system. In Himachal Pradesh, Rabi pulses (except gram) are grown in an area of 6.2 thousand hectares with a total production of 3.1 thousand tonnes 1997-98. The average yield is very low i.e. 5.8 q/ha. The important reasons of such low yields are: (i) non-availability of high yielding disease resistant varieties, (ii) growing of pulses under deficit moisture and poor management practices in marginal soils, (iii) lack of use of any fertilizer or rhizobium culture and (iv) lack of adoption of plant protection measures. The optimum time of sowing of gram is the middle of October. It helps to control the wilt disease. Early sown crop suffers from wilt due to high temperature at the sowing time. Such sowing is also associated with excessive vegetative growth which results in poor yield. When gram is mixed with wheat or barley, the time of sowing will depend upon the main crop. Apply whole of the phosphorus, potash and nitrogen at the time of sowing by pora method. In case of mixed crop with wheat, additional fertilizers should not be added.

Dr. Tuhina Verma said that Role of pulses in Indian agriculture needs hardly any emphasis; India is a premier pulse growing country. The pulses are the integral part of the cropping systems of the farmers all over the country because these crops fit in well in the crop rotation and crop mixtures followed by them. Pulses are important constituents of the Indian diet and supply major part of the protein requirements. Pulse crops, besides being rich in protein and some of the essential amino acids, enrich the soil through symbiotic nitrogen fixation from atmosphere.

Ratnesh Kumar Rao, Secretary, Mahima Research Foundation and Social Welfare said that to achieve good production of oilseeds good quality seeds are of great importance. The first section of this book provides the seed production technologies for four important oilseed crops i.e., groundnut, gingelly, sunflower and mustard. While the standards mentioned here are for certified seed production farmers are also advised to follow these procedures in general for seed production. This will ensure good quality seeds which will in turn lead to good crop yields.

Pulses are an important source of dietary protein. They also have a unique property of maintaining and restoring soil fertility by fixing the biological nitrogen. Besides this, they also conserve and improve physical properties of the soil because of the deep root system and leaf fall. Pulse crops add nitrogen to the soil @ nearly 30 kgs/ha. According to the Food and Agricultural Organisation (FAO) the individual protein requirement per day is 80 gms. However, the availability today is less than 40 gms/day. India grows nearly 23 million hectare of pulse crops and the production of pulse grains is nearly 14.4 million tonnes. However, for the last 40 years the yield of pulses is rather stagnant. It is important to increase the yields to twice the rate at the earliest.

The most important factor in increasing the yields of pulses is to get access to good quality seeds. The second section of this book deals with seed production techniques of important pulses like greengram, blackgram, cowpea, soya bean, redgram and horsegram. While the techniques described here are for certified seed production farmers are advised to follow these procedures for seed production in general to get good quality seeds.

Indian Journal of Agriculture and Allied Sciences (IJAAS), is a quarterly Refereed Research National Journal. IJAAS was established in December 2014 and will be launched from Jan-March 2015 by a group of dedicated academicians and researchers of Agriculture and allied sciences under the dynamic leadership of Ratnesh Kumar Rao, Secretary, Mahima Research Foundation and Social Welfare, 194, Karaundi, Banaras Hindu University, Varanasi, U.P. (India). The journal aims to disseminate important researches and theoretical works in Agriculture and Allied Sciences around the world.

(Ratnesh Kumar Rao)
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