AICRIP Experimental Database Portal

http://www.aicrip-intranet.in

Pest Disease NPK Uptake Research Analysis Co-operator's AICRIP Seed Dispatch Crop condition Weather Data Field Monitoring Virtual State Trial Centers Plant Breeding &Hybrid Rice Centers Departments Organizations Ecosystem Trial Indents Allot Design Variety Reports Copy from Excel Agronomy, Soil Science & Physiology Screen Main Pest RBD & Split Analysis Screen Main Disease Experimental Database Portal Production Oriented Survey Seed received info State Zonal Elevation wise Report Screening Pest and Disease Reports RBD & Split Location, Trial wise Report Damage Unit Drought Water Entomology & pathology District Low performance

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Preface

Rice is the most important crop for food nutrition and lively hood for millions of population in the country. It is widely cultivated in diverse agro ecological zones. Despite significant improvements over the past, the average productivity of rice in the country is still low because of the diversity in its growing environments, poor management practices, diverse insect pest and disease problems. Managing this variability is a major challenge for further increasing the productivity of intensive rice cropping systems.

Indian Council of Agricultural Research (ICAR) initiated All India Coordinated Rice Improvement Project (AICRIP) in 1965 to address the above challenges and to increase the productivity and sustainability of rice. Currently there are 45 funded centres and more than 100 voluntary centres of AICRIP in addition to few partners of private sector all over the country.

Every year numerous rice cultivars, production and protection technologies are evaluated under AICRIP system. Rice production technologies are released based on the intensive statistical analysis of multilocation data over the years. Data receipt in diverse formats, arranging data for analysis and final summary tables for progress reports are the major concerns resulting the delay in the analysis and reporting. It is also difficult to retrieve data over the years without the centralised database concept.

Keeping in the above mentioned points in view, AICRIP Experimental Database Portal is developed to receive and manage uniform data under AICRIP and ease the analysis and reporting process. This portal was successfully hosted at the URL www.acirip-intranet.in during 2011. All the activities and observations under AICRIP are designed through simple user friendly interfaces with the help of drop down boxes. This bulletin is prepared to help the scientists/cooperators to enable them to upload the real time data through different user interfaces for further analysis at IIRR.

I compliment the efforts made by the authors in bringing out this bulletin and hope that the AICRIP coordinators, principal investigators and cooperators will find this publication useful.

April, 2022   **(R.M. Sundaram)**
IIRR, Hyderabad   Director

Contents

Background

Rice is grown in diverse ecosystems in India and rice farmers face varied challenges in terms of abiotic and biotic stresses of rice crop. Indian Council of Agricultural Research come up with the concept of All India Coordinated Rice Improvement Project(AICRIP) way back in 1965 at Rajendranagar, Hyderabad to analyse the ecosystem complexities, destabilize biotic/abiotic stresses as well as grain quality requirements of different rices etc. All India Coordinated Rice Improvement Programme (AICRIP) is the largest research network on a single crop comprising 45 funded (Fig. 1) (196 scientists) and about 100 voluntary centres (Fig. 2) (more than 120 scientists) spread across all the rice growing states of the country.
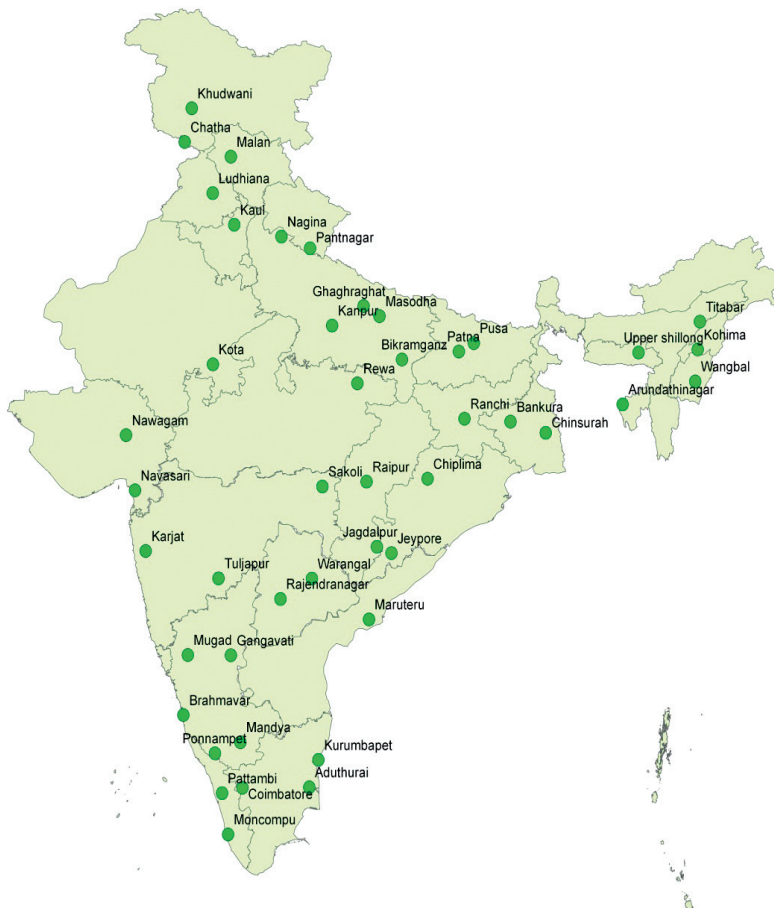

Figure 1: AICRIP Funded Centers

AICRIP capitalized upon the available research infrastructure in different states of India and successfully introduced a national perspective to rice research (Pathak *et. al.,* 2019). The main objective of the AICRIP is to organise and conduct multidisciplinary and multilocation evaluation of varietal, crop production and protection technologies across diverse ecosystems to increase and stabilise rice production.

Figure 2 : AICRIP Vountary Centers

The AICRIP system comprises of experiments under seven major disciplines viz., Varietal Improvement (Breeding, Hybrid rice), Crop Production (Agronomy, Soil Science, Plant Physiology), Crop Protection (Entomology, Plant Pathology). AICRIP adopts a unique model that facilitates joint programme

planning and implementation of multi-location testing along with exchange of breeding and germplasm material. This "National Evaluation system" follows a three tier system and assigns a number to every nominated entry developed by different cooperating centers known as Initial Evaluation Trail Number (IET No.). Normally, it takes a minimum of three to four years to identify a promising variety. The first level of testing involves one-year initial varietal trial (IVT) followed by two years of advance varietal trials (AVT-1 and AVT-2). These trials help in the identification of elite breeding lines with consistently superior performance over the best checks. Simultaneously, these nominated lines will be screened for resistance to major insect pests and diseases at hotspot locations as well as controlled conditions under well-defined disease and insect pressure. Additionally, grain quality and agronomic performance will also be assessed for all the promising entries (Subba Rao *et. al.,* 2019).

All the cooperators from AICRIP centers numbering more than 300 meet annually to review the progress made and formulate the technical programme for next year. After finalising the technical programme in the annual group meetings, the project coordinator supplies the seed material for conducting various trials and also sends data books to different centres. Data books help to maintain proper uniformity in reporting the results. Data submitted by the Cooperators is compiled, examined and analysed through statistical unit of the coordinating cell. Annual progress reports are prepared using this information. Therefore, this data is to be scrutinised by the principal investigators (PIs), scientists and analysed by statisticians at the coordinating centre. The time available between receipt of data at the project coordinating center and workshop is very much limited thus putting enormous pressure on the statisticians and the scientists who are involved in report writing. Finally, after three years of testing, the details of best performing elite lines possessing desirable characters and required level of resistance will be submitted by the concerned breeder in a proforma along with all the supplementary data and relevant information for consideration of the variety identification to the variety identification committee (VIC) during the Annual Rice Group Meetings. Thus the superior test entries identified in the crop workshop/group meeting will be later approved by the

central sub-committee on crop standards, notification and release of varieties (CSCS & NRV) and state variety release committees (SVRC) and those approved cultures would be named and released for general cultivation as Central or as State releases.

The entire testing process involves compiling and analysis of enormous experimental datasets from the above mentioned seven major disciplines.

Need and Purpose

Rice Production technologies are released based on the intensive statistical analysis of multilocation data of the trials/experiments conducted over the years. Experimental Data plays a major role in the AICRIP System. Over the years, tremendous changes have occurred in the process of receipt of data from various centres located all over the country (Fig. 3). During the 1990s, data was sent to the Project Directorates as hard copies through post. Early 1990s data was processed using calculators and later moved to stand alone packages/languages like FOTRAN. The key issues like delay in the postal services and missing data books was overcome by the advent of email based data receipt system in the 2000. Early 2000s, Excel was used for data entry and analysis was taken up by SAS and in-house developed standalone packages like DRRSTAT. Arrangement of data according to the format of statistical packages, rearrangement of analysis results for final reports and storage of data in various formats in respective disciplines are the problems during this period. Later after 2010, the centres sent the data using the prescribed formats of excel data sheets sent by the Coordinating centre through emails (Figs. 4, 5). Over the decades, the main center accustomed to take up the challenge of laborious job of compilation and arrangement of data to the suitable statistical packages and then statistical analysis and report writing within the limited time period between receipt of data and conduct of workshop.

Every year, a very large number of trials (nearly 2000 trials with 1000 traits) are organised and conducted at many locations. For example, during 2019, 520 experiments were conducted from varietal improvement section at 126 locations covering 5 regions of the country (ICAR-IIRR, 2019). This voluminous data is

maintained in the respective departments in widely varying formats. Compiling and analysing the data across disciplines to nominate best performing variety is a tedious job consuming more time and labour.
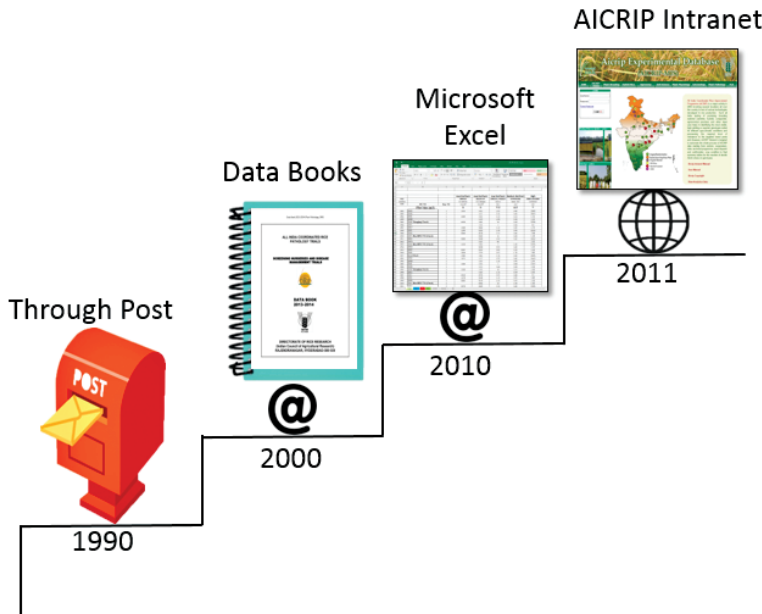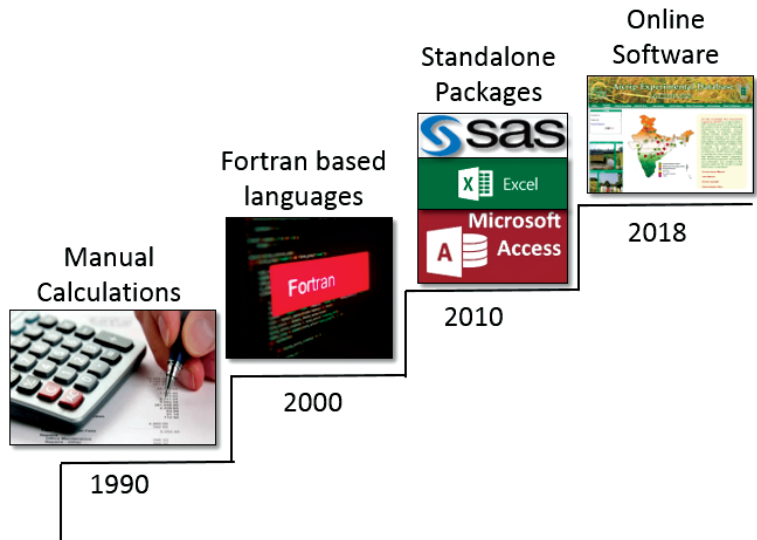

Figure 3: Transformation in AICRIP data receipt over the decades

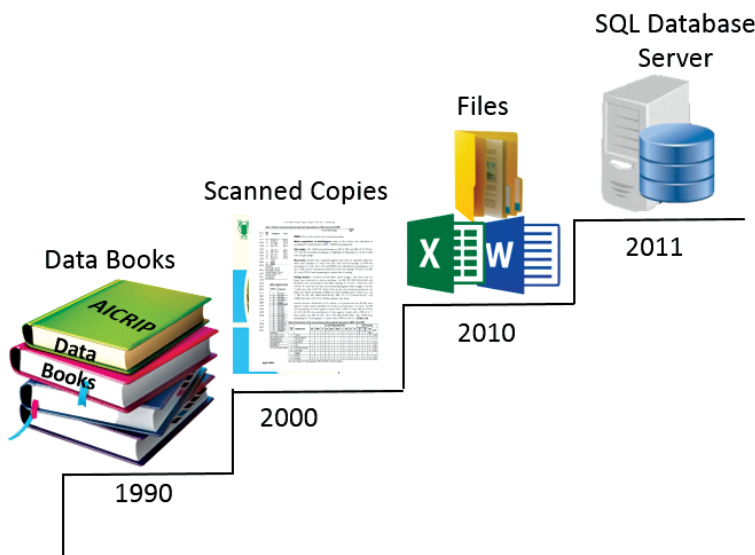Figure 4 : Transformation in AICRIP data analysis over the decades

Figure 5 : Transformation in AICRIP data storage over the decades

The present era has seen an exponential growth and diversification in all forms of on-line data management system, which is sometimes called, as information explosion. It has become possible due to the impact of computer technology on the modern society. Computerized data management systems have influenced nearly all types of organizations, whether small or large, public or private, national or multinational (Kumar Sanjeev *et.al.*, 2006). With fourth industrial revolution technologies, data can be used, re-used and re-purposed with infinite possibilities. Through appropriate technologies and governance frameworks, data sharing can enable benefits and innovation. Management of research data is important for every research institute. The absence of centralized data management and data storage within the research institute always cause problems like research data loss or not reusable. Data management information system is needed by research institute in order to manage data centrally by paying attention to the business process of research and requirement to the process of storage and sharing of research data (Onny Rafizan, 2017).

Hence, a need was felt to develop centralised database portal for effective uniform data management, analysis and real time reporting.

Keeping in view of the above-mentioned points, AICRIP Experimental Database Portal has been developed with the following objectives:

- To maintain experimental database uniformly across disciplines and centers.
- To develop software programs for analysing experimental data and generating final reports under AICRIP.
- To develop queries for retrieving multilocation data across the disciplines over the years.
- To develop Artificial intelligence models to use as backend for Spatial Rice DSS.

Requirement Analysis and Design

Different entities and activities under AICRIP system starting from centers, Cooperators, disciplines, experiments/trials, parameters, statistical designs, entries/treatments, seed dispatch, trial information etc. were analysed (Fig. 6) and the details are presented below (Sailaja *et. al.*, 2012, 2016).

Figure 6 : AICRIP Experimental Data Diagram

Details on trials / experiments and experimental designs

Experiment and Design are two different key words. An experiment is the act of conducting a controlled test or investigation. The word controlled means most of the conditions that happened or were used in the experiment are known or regulated. In agricultural experimental research, different levels of a particular

parameter or several parameters are evaluated. The second keyword is design which may mean arrangement. One important point here is no two agricultural fields or plots are exactly the same. Replication is needed to record experimental error (variation). Proper design is important to find out significant differences exist among the levels or kinds of treatments. This is accomplished by using the technique of Analysis of variance which uses two basic estimates: mean and deviation from the mean (Efren, 2022). Mainly each experiment has important parameters to study the significant differences across different centers of AICRIP system. Trial, Center, Parameter along with the Year play important role in designing the experiments. As major time consuming job is arrangement of data for statistical analysis packages and rearrangement of analysis results in the required format for progress reports, User interfaces for uniform data receipt and consolidated multilocation reports as per progress report format are required.

a) Trials / experiments

- Evaluation of advanced breeding lines / hybrids in terms of durations and yield parameters for different ecologies (Randomized Block Design-RBD)
- Evaluation of crop management technologies (RBD and Split plot designs) in terms of yield and other components
- Studies on long term fertility on soil and sustainability (RBD and Split plot designs) in terms of soil fertility status and plant nutrient uptake.
- Screening of genotypes to different abiotic stresses (RBD and Split plot designs)
- Evaluation of agro chemicals, pesticide, fungicide and weedicides (RBD and Split plot designs) for efficacy, phytotoxicity and grain yield
- Screening of genotypes for reaction to pests and diseases to identify the genotypes with desirable levels of resistance promising levels to identify promising lines

b) Experimental Designs

The following are the major experimental designs used in the seven disciplines of AICRIP.

(i) RBD and Split plot designs

These designs are common for many of the trials conducted in the seven disciplines of AICRIP system. RBD and Split plot designs commonly require essential parameters like number of replications and treatments, details of treatments and treatment and replication wise data. Number of main/sub plots (levels) and treatment wise data in these levels are required additionally for split plot design.

Parameter wise experimental mean, critical difference (CD), coefficient of variation (CV), significance of experiment after comparing with T and F distribution tables are required for each center under the trial to study the significant differences. Main /Sub plot means and Interaction CD values are needed in case of split plot designs. State/Zone wise RBD analysis and consolidated reports along with ranks and performance over best/local/ national/hybrid/zonal checks are required for the promotion of entries in breeding/hybrid rice trials.

(ii) Screening of genotypes for their reaction to pests/diseases

Evaluation of nominated elite breeding material or genotypes may be made in nursery on seedlings or in field on planted crop which are henceforth called as screening-set. Multilocation data is gathered on both plant performance and site characteristics in order to study the genotype X environment interactions (Sailaja, B., 2004). All the reaction of entries to pathogens are scored on a 0-9 decimal scale (Nagarajan and Muralidharan, 1995).

In case of pests, screening genotypes for the reaction to pests need user interface for entering the number of entries, promising level, entry wise score/ percentage of incidence of pest. Four modules are required for evaluating test genotypes for the reaction to pests across different locations: location wise promising entries; entry wise number of promising tests/locations (NPT); overall NPTs for a group of pests (ex: Plant hoppers, Gall midge biotypes etc.); Genotype wise multiple pest resistance i.e., Total NPTs x No. of pests; percent promising response to assess the performance of genotype to multiple pest damage; frequency distribution table for pest incidence.

In case of diseases, screening genotypes for the reaction to diseases need user interface for entering the number of entries and entry wise disease score. Four modules are needed for analysing test genotypes for the reaction to diseases across different locations: frequency distribution table for disease scores with location severity index (LSI); LSI for each entry (genotype) in the screening-set; select locations by eliminating those with low LSI; and list promising entries based on entry- wise susceptibility index (SI) of genotypes across locations.

Design of AICRIP Experimental Database

AICRIP Experimental Database has been designed with a layered structure wherein each layer corresponds to a particular functionality. The design of AICRIP Intranet is made up of three layers viz. User Interface Layer (UIL), Application Layer (APL) and Database Layer (DBL). User interfaces were created using Microsoft Visual C Sharp. Centralized database was created and relational tables were designed using Structured Query Language in SQL server 8.0 (Fig. 7).
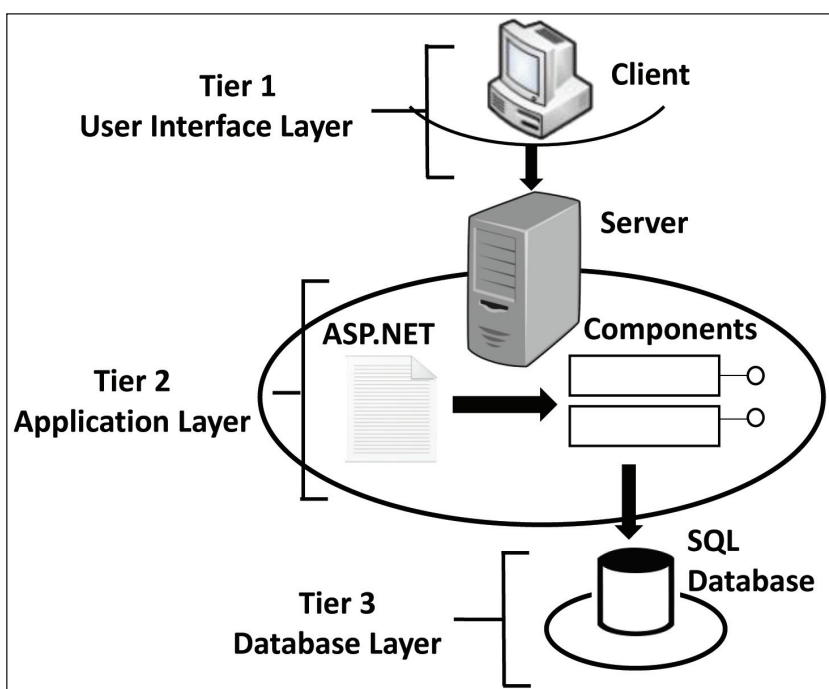
Figure 7 : Three tier Architecture of AICRIP Experimental Database(AICRIP intranet)

Common designs used for AICRIP data are Random Block Design (RBD) and Split Plot Design. Specific designs are required for screening insect pests and diseases. There were MASTER and DETAIL tables for each analysis i.e. MASTER table was designed for recording trial details and DETAIL table for recording entries/treatments and replications. Primary and secondary keys were created to access the records and eliminate the redundancy of the data. Relational tables for basic data entry like departments, centers, cooperators, entries (varieties), weather, pests, diseases, screening names, trials, seed dispatch , crop condition etc. were created for ease of data entry Intermediate tables were designed based on the requirements of analysis: for example frequency table is required for pathology discipline and T-table and F-table are required for common designs like RBD and Split analysis etc. This portal was designed with 57 relational tables, 190 stored procedures and 60 user interfaces. One to one and one to many relationships were created among these tables (Fig. 8).

Development and Implementation of the portal

The site is successfully hosted at URL (http://www.aicrip-intranet.in) during 2011 and it is also accessible by clicking the AICRIP intranet link in ICAR-IIRR website (https://www.icar-iirr.org). Different menus and interfaces under Admin/PI and Users privileges are presented below.

Menus and Interfaces of AICRIP-Intranet

Home page

Home page and different discipline pages are accessible without login credentials (Fig. 9). A clickable map depicting AICRIP centers is displayed in the home page. Salient achievements of centers are accessible by clicking the center code in AICRIP map. Annual Progress reports, AICRIP intranet manuals are downloadable by clicking the particular links. Annual technical program and data sheets are available to download in the respective discipline pages.
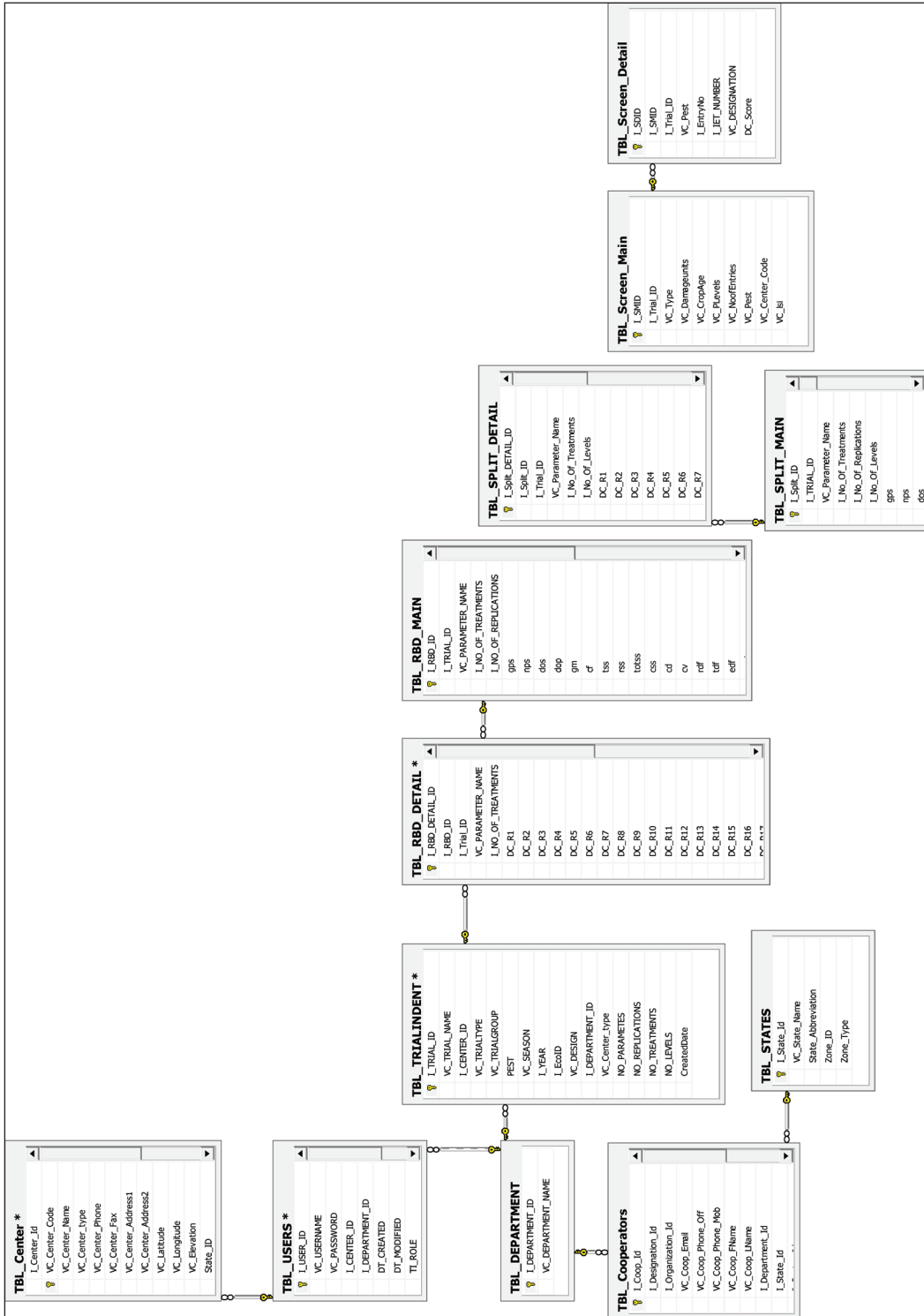
Figure 8 : ER diagram depicting few relational tables of AICRIP Intranet
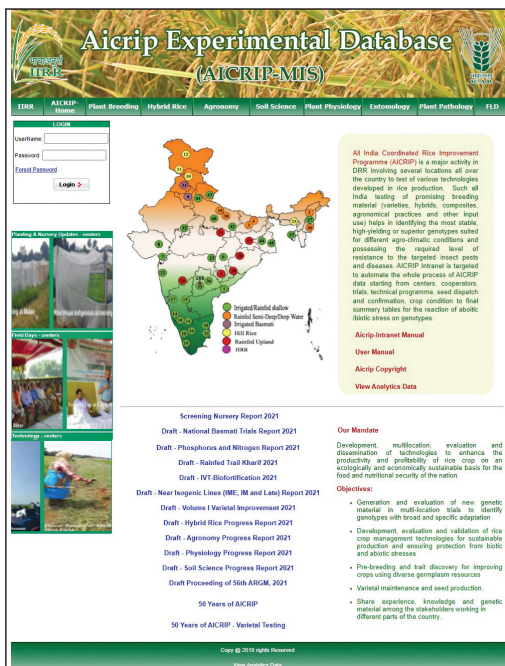
Figure 9 : Home page of AICRIP Intranet

User credentials and Privileges

Login form is available in the home page. User has to enter credentials in the form to login into the data portal (Fig. 10). Detailed User list with the name of centre, code, user name is furnished in Annexure-II. All the users may refer to the list for viewing and uploading the data online.
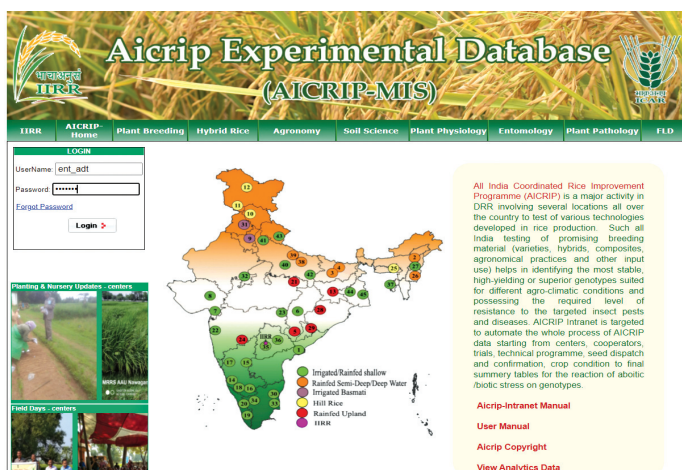

Figure 10 : Login page of AICRIP Intranet

As this database is handling multilocation, multidiscipline and multiusers, data sharing privileges are defined depending on the role of data access to specific user. Five levels of data sharing privileges were created such as Administrator, National Coordinator/Director, AICRIP PI, Center In-charge and Cooperator (Table 1). There are some common forms for all departments and specific forms for some departments. Specific forms will be listed only for those departments like Screen Main Pest will be displayed only for Entomology discipline and Screen Main Disease will be displayed only for Pathology discipline.

Table 1: Data sharing privileges- AICRIP Intranet

S. No.	User	Privilege
1.	**Administrator**	To Add/Update new features and to access (Add/Update) data from all Centers and all Disciplines
2.	**National Coordinator**	To access (Add/Update) data from all Centers and all Disciplines
3.	**Principal Investigator (PI)**	To access (Add/Update) data from all Centers for Specific discipline of PI
4.	**Center In Charge**	To access (Add/Update) data from Specific Center for all disciplines
5.	**Cooperator**	To access (Add/Update) data from Specific Center and Specific discipline

For example, an entomology cooperator from Aduthrai center can access menu items listed for Entomology department (Common forms like trial information, weather etc. and specific forms like screening nurseries for insect pests and light trap forms). User can only access the trials under the respective center for entomology discipline. Likewise screening nurseries for diseases forms are displayed only for Pathology users (Fig. 11).
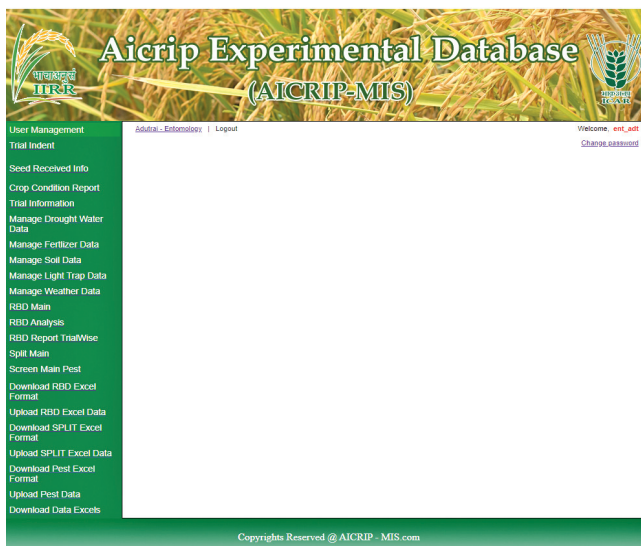

Figure 11: Cooperator previlege screen of AICRIP Intranet(Entomology Cooperator)

Change Password/Forgot Password

   User has to enter **user name** and **password** allotted to the respective discipline and center to enter into AICRIP-Intranet using login form of Home Page. Passwords can be changed after login to the system using **change password in** the top right of the menu (Please see the arrow mark pointed to that link).

   By choosing the **Change Password** Menu Item, **Change Password** form appears on the screen. This menu prompts for old password, new password and confirmation and then password successfully changed message will be appeared on the screen. User has to use the changed password for entering into AICRIP Intranet (Fig. 12).
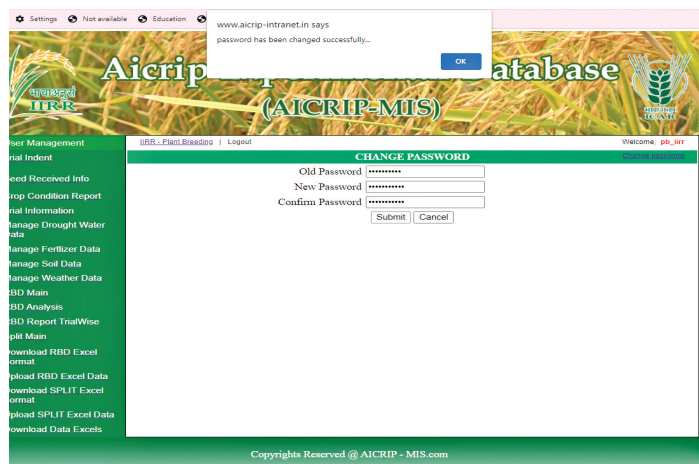

Figure 12: Change password screen of AICRIP Intranet

Forgot Password

User has to select **Forgot Password** option to retrieve the password. The screen prompts for user name and email for retrieving password (Fig. 13).
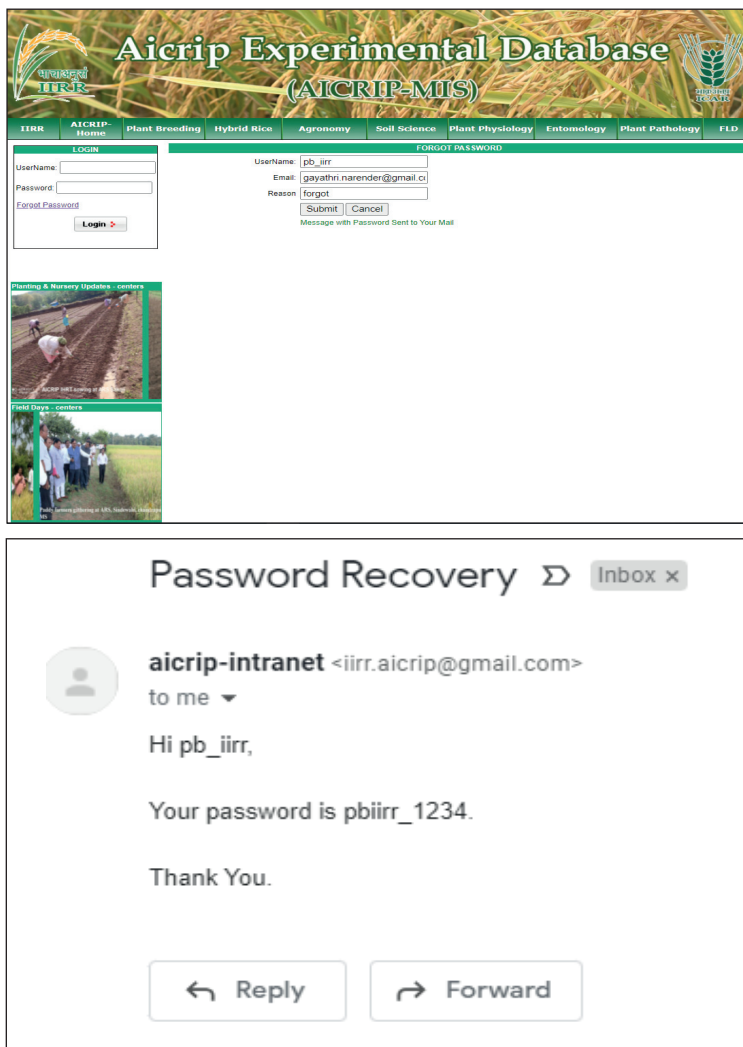

Figure 13: Forgot password screen of AICRIP Intranet

Menus in Admin/PI privilege

At the coordinating center, the basic details of centers, cooperators, trials, statistical designs, parameters, entries/treatments etc. are updated every year by using the following user interfaces.

Update Centers data

By using the menu item **Centers,** list of centers will be displayed. By using the **View button,** Centers data can be displayed (Fig. 14)**. Add Centers** is used for adding the details of new center.
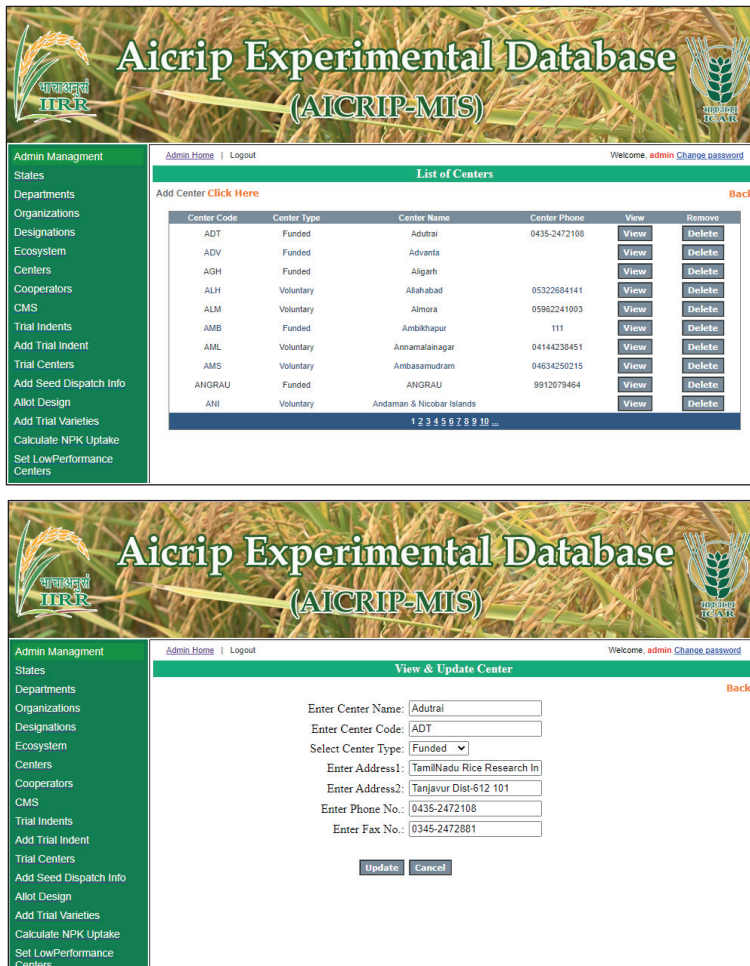

Figure 14: Centers user interface of AICRIP Intranet

Update cooperators data as per registration

By using the menu item **Cooperators,** list of cooperators will be displayed for the selected discipline. **Add Cooperators Click here** will be used for adding new Cooperators (Fig. 15)

Figure 15: Cooperators user interface of AICRIP Intranet

Add newly planned Trials

Trial Indents menu item from the left side menu is used for viewing the trials for the selected year. By using the **Add Trial Indent Click here,** new trial can be added to Intranet. Department, Season, Year, Ecosystem, Trial Name are the mandatory fields in the trial Indent form (Fig. 16). Trial Name is the key field used to retrieve/enter the trail data in different menus and reports of Intranet. Trial Name should contain abbreviation of trials like IVT, AVT etc., year and season for easy understanding of the trial name.

Figure 16: Trial Indent user interface of AICRIP Intranet

Allot trials to locations as per star sheet

As per the star sheet, trials will be allotted to centers using **Trial Locations** Menu Item. By selecting Discipline, Year, Trial from the drop-down boxes and choosing Funded/Voluntary centers, total list of centers will be displayed in the

left side box. By using ">> "symbol, the selected centers will be added in the right-side box, these centers will be allotted to the particular trial (Fig. 17).
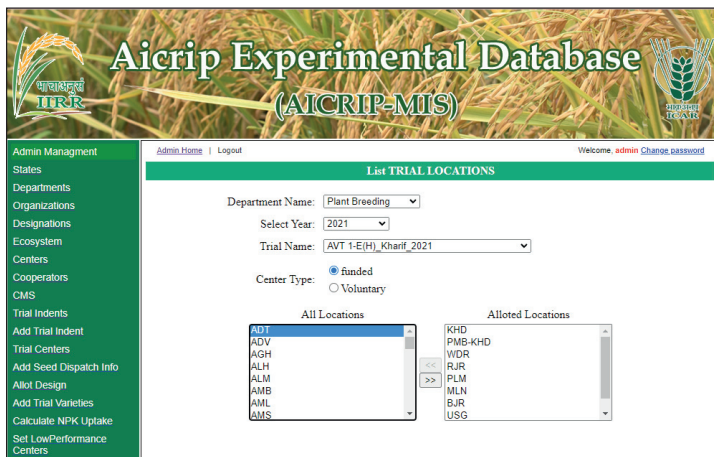
Figure 17: Trial Locations user interface of AICRIP Intranet

Add seed dispatch details

Seed dispatch details like number of entries, quantity and the date of dispatch are added using the menu item **Seed dispatch** (Fig. 18).
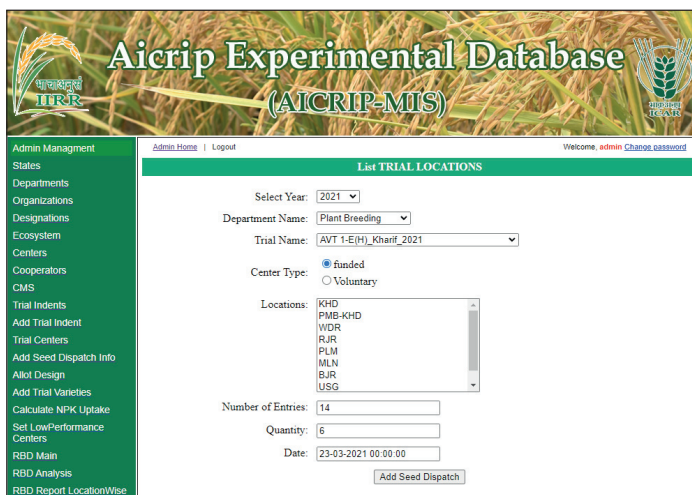
Figure 18: Seed Dispatch user interface of AICRIP Intranet

Add experimental designs and parameters to trials

Experimental Designs like RBD, Split, Screen Main Pest/Disease, number of replications, treatments and parameters are added to the trials using the

menu item **Allot design.** Parameter names also will be added using the Update Command Button (Fig. 19).
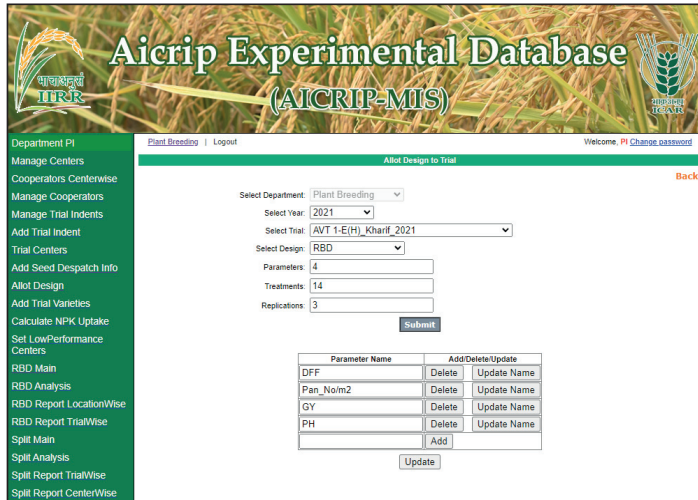
Figure 19: Allot Design user interface of AICRIP Intranet

Add treatments/entries to the trial

Treatments or Entries in the trial are added using the menu item **Add Trial Varieties.** After selecting the year and trial, the grid will be displayed for entering the treatments/entries**. Copy Excel** option can be used for copy and paste data from Excel (Fig. 20).
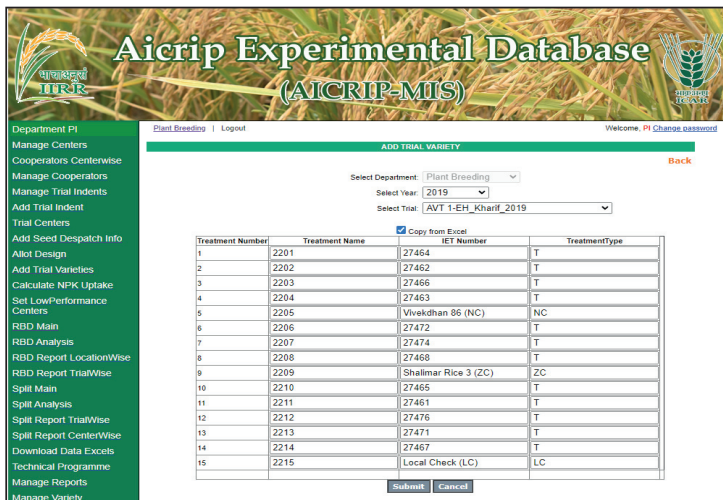
Figure 20: Add Trial Varieties user interface of AICRIP Intranet

Analysis and Reports

RBD and Split analysis are accessible to all the users. User interfaces of these analysis modules are discussed in the user privilege section. The following multilocation data analysis menus and reports are only accessible to Admin/PI privileges. Reports are listed under menu item **Manage Reports (Fig. 21).**

Figure 21: Add Trial Varieties user interface of AICRIP Intranet

i) Setting the CV and experimental mean values for low performing districts

Set Low Performance Centers menu item can be used for setting the maximum and minimum range CV and experimental mean values. After selecting year, trial, maximum and minimum CV and experimental mean values, using **Get List of Centers** command button, Centers meeting the criteria will be displayed. By changing the CV and mean ranges, the list of centers can be checked and by using the **Set CV and Mean values,** low performing centers will be marked in the database with the symbol '@.' Further this symbol is used for eliminating the low performance districts from statistical analysis in state/zonal reports (Fig. 22).
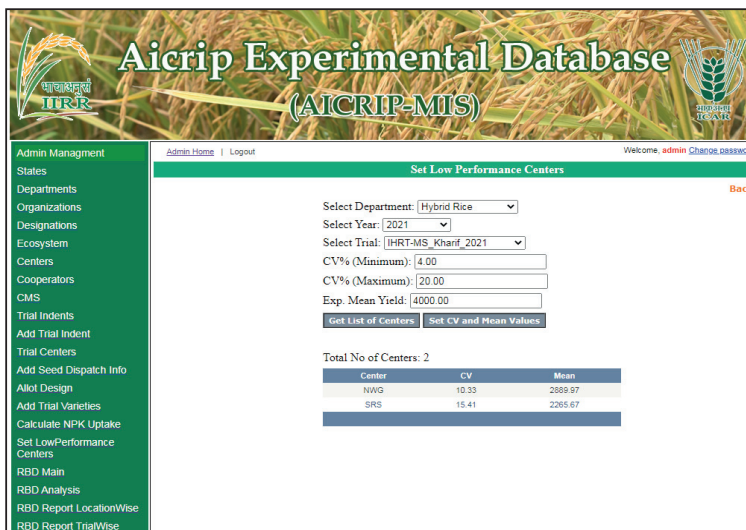
Figure 22: Set Low Performance Centers user interface of AICRIP Intranet

ii) NPK uptake calculation

There is one intermediate calculation in soil science trials i.e. computation of N, P and K uptakes. These values will be calculated using the calculate **NPK menu item.** This interface prompts for trial, year and location and by using **the calculate GY N/P/K uptake, SY N/P/K uptake, Tot_NPK uptake,** the uptake values will be calculated (Fig. 23) and saved in the database for further analysis (Fig. 24).

Figure 23: Calculate NPK Uptake user interface of AICRIP Intranet
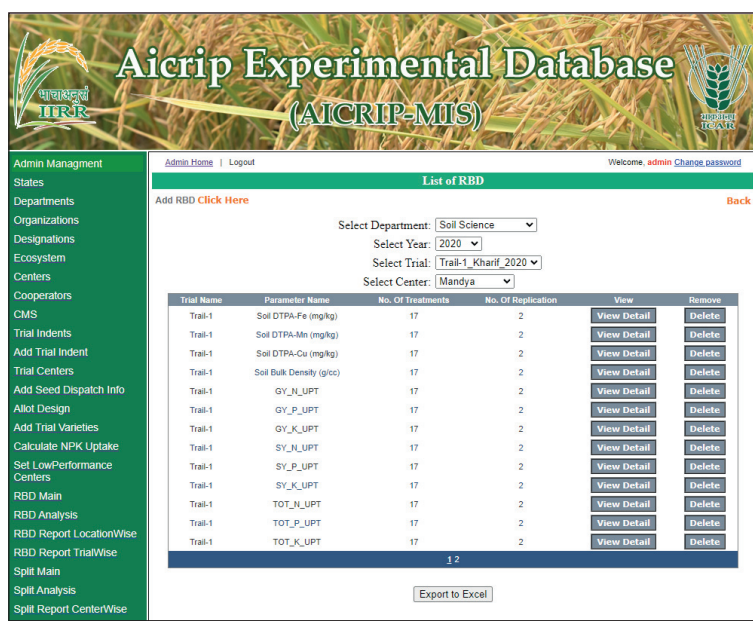
Figure 24: Computed N,P and K uptake values in AICRIP Intranet

iii)Center/Department wise allotted trials report

This report can be selected using **Manage Reports** menu item. This report prompts for center/department and retrieve the allotted trials to the center/ department (Fig. 25).
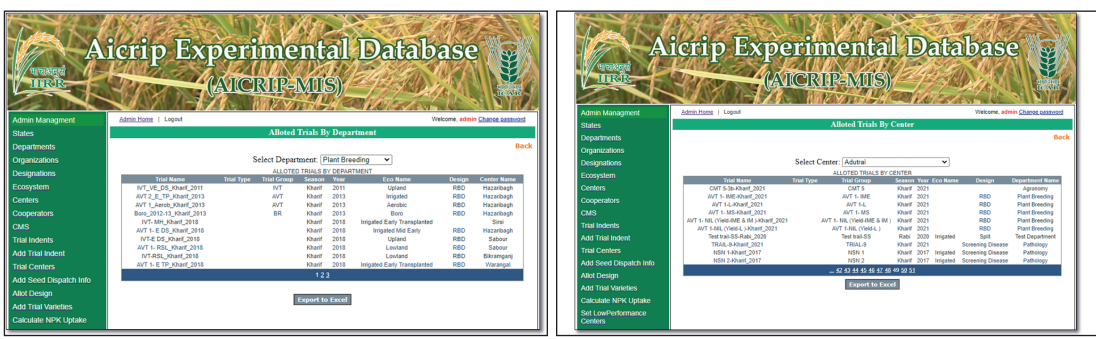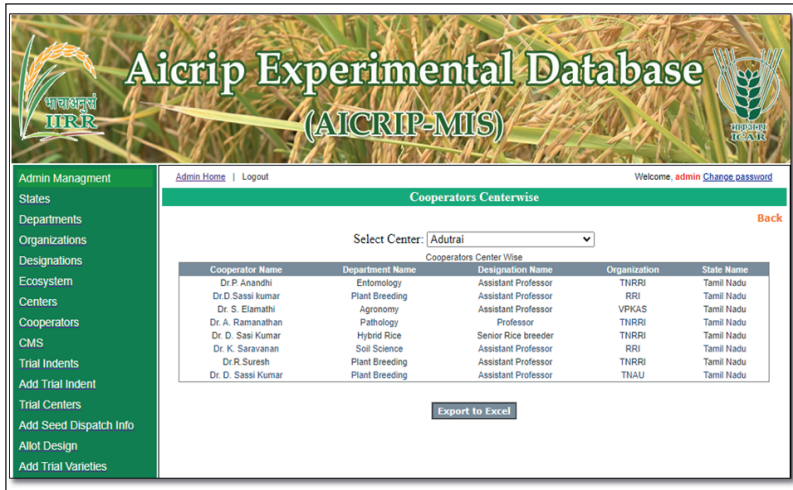
Figure 25: Center/Department wise Allotted trials report in AICRIP Intranet

iv)Center/department wise cooperators report

This report can be selected using **Manage Reports** menu item. This report prompts for center/department and retrieve cooperators in the center/ department (Fig. 26)

Figure 26: Center/Department wise Cooperators report in AICRIP Intranet
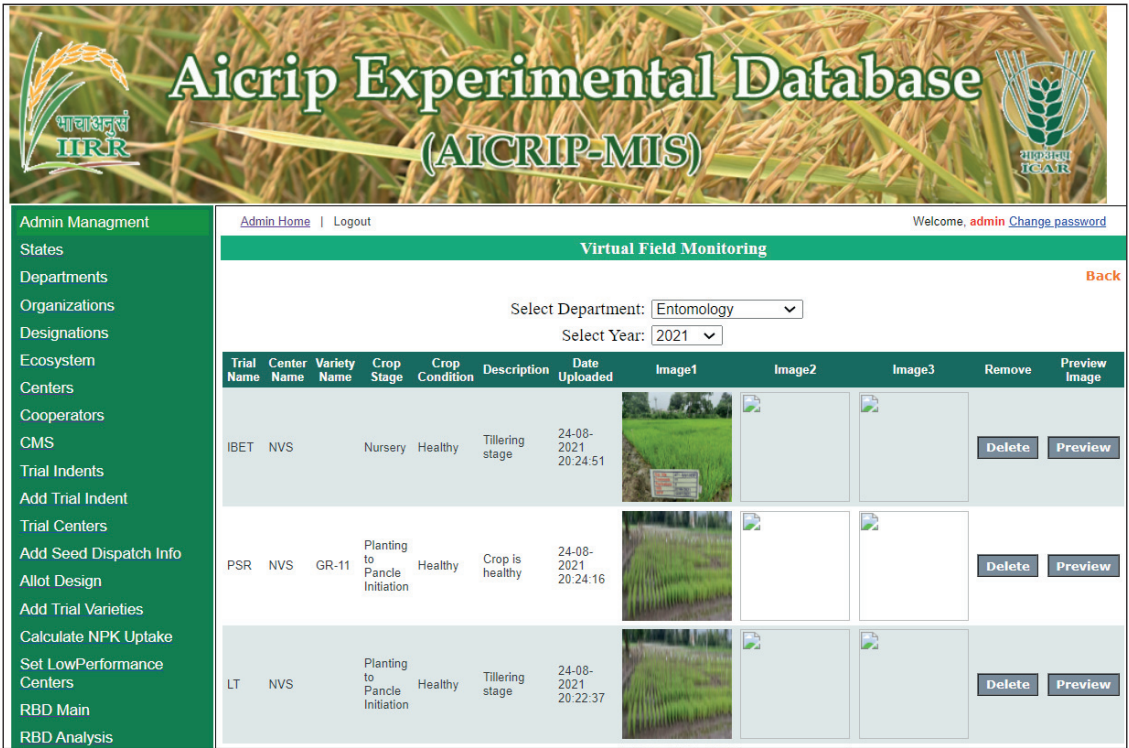
v)Center/department wise trial count report

This report can be selected using **Manage Reports** menu item. This report prompts for the year and displays center and department wise trial count for the particular year (Fig. 26a).

SNO	Center Name	Agronomy	Soil Science	Physiology	Plant Breeding	Entomology	Pathology	FLD	Hybrid Rice
1	ADT	11			19	16	9		4
2	ADV								
3	AGH								
4	ALH				1				2
5	ALM	8			9		9		
6	AMB				6	3			
7	AML				3				
8	AMS								
9	ANGRAU								
10	ANI								
11	ANK								4
12	ANKN								
13	ARD	6			15	4	7		4
14	ARI								
15	BAY								4
16	BBN				10				
17	BBSH								
18	BGL								
19	BGS				1				
20	BHJ								
21	BIO								
22	BIS				1				
23	BJR				4				
24	BKMG	33			20				
25	BLP				2				
26	BLS				6				
27	BNK	1			4		7		
28	BNP-KHD								
29	BNS								
30	BPT	1			7	5			1
31	BRM				15				2
32	BRP				1				
33	BSR								
34	CAU-BRP				2				
35	CBT	5		4	21	8	13		3
36	CHB								

Figure 26a: Center/Department wise trial count report in AICRIP Intranet

vi) ***View Field Monitoring Images*** menu item can be used to view the uploaded field monitoring images (Fig. 27).
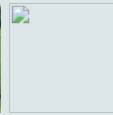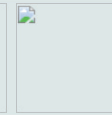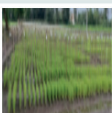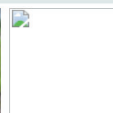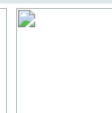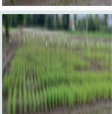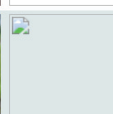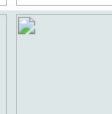
Figure 27: View Field Monitoring interface of AICRIP Intranet

vii)RBD Report trial wise

RBD Report trial wise can be used for generating multilocation report of RBD analysis. This report prompts for the department, year and trial and generate the report to Excel file (Fig. 28).

GY					
Treatment No		Treatment Name	MTU	MND	TTB
1		Control	2675	1550	1666.67
2		100% N	3883.33	2060	4066.67
3		100% NP	4016.67	2060	4200
4		100% NPK + Zn +S	5466.67	3620	4683.33
5		100% NPK (-) Zn	4816.67	3335	4616.67
6		100% NPK (-) S	5516.67	4720	5483.33
7		100% N + 50% P + 50%K	5833.33	4850	6016.67
8		50% NPK	5350	3985	4750
9		50% NPK + 50% GM − N	5491.67	3770	4483.33
10		50% NPK + 50% FYM - N	5366.67	3735	4783.33
11		50% NPK + 25% GM -N + 25% FYM - N	3541.67	2620	3800
12		FYM @ 10 t/ha	5000	3400	2766.67
13		100% PK	5408.33	3405	4333.33
14		100% NPK + Zn +S + FYM @ 5 t/ha	5333.33	3645	5216.67
15		T15 STCR (114-78-41)	5583.33	4430	5233.33
16		T16 50% NPK + Azospirillum	5475	3265	5300
17		T17 FYM @ 10 t/ha + split application of vermicomp	5283.33	3505	5266.67
Experimental Mean			4943.628	3409.118	5100
CD(0.05)			731.31	361.14	4542.593
CV(%)			8.96	5	382.18
res1			**	**	5.1

Figure 28: Multilocation report of RBD Analysis generated to Excel in AICRIP Intranet

viii)Split Report trial wise

Split Report trial wise can be used for generating multilocation report of split plot analysis. This report prompts for the department, year and trial and generate the report to Excel file (Fig. 28a).

	GY					
Plot	Treatment No	TTB	MTU	KRK	PNT	PSA
1	1	2150	3633.33	4166.67	2300	2560
1	2	2766.67	3723.33	4722.33	2676.67	2143.33
1	3	2766.67	2876.67	5000	2633.33	2670
1	4	2533.33	3910	4583.33	2750	2786.67
1	5	2800	3906.67	4444.33	2883.33	3046.67
1	6	4283.33	2473.33	3194.67	2790	3606.67
1	7	2250	2600	4027.67	2533.33	2000
1	8	2733.33	4160	4722.33	2886.67	3703.33
1	9	3433.33	3666.67	3194.33	2783.33	3466.67
1	10	2466.67	4270	4722	2866.67	2440
2	1	2600	5190	4722.33	4546.67	3650
2	2	2850	4933.33	5000	4713.33	2740
2	3	3083.33	3680	5000	4700	3713.33
2	4	3016.67	4206.67	4305.67	4816.67	3650
2	5	3133.33	5140	3889	4640	4283.33
2	6	2933.33	4900	3555.33	4973.33	4480
2	7	2633.33	4343.33	3750	4656.67	2953.33
2	8	2533.33	4700	4583.33	4830	4910
2	9	3033.33	4713.33	4027.67	4833.33	4816.67
2	10	2483.33	4840	5333.33	4806.67	3823.33
3	1	4433.33	5603.33	4583.33	5583.33	5046.67
3	2	3466.67	5066.67	4722.33	5776.33	3690
3	3	3800	4150	4861	5930	4736.67
3	4	3833.33	4446.67	4028	5816.67	4033.33
3	5	3716.67	5806.67	3888.67	5780	5550
3	6	4733.33	5210	2777.67	5726.67	5380
3	7	2700	4580	2750	5566.67	3696.67
3	8	2933.33	5630	4555.33	5850	5890
3	9	4500	5826.67	3333	5666.67	5910
3	10	4483.33	5113.33	5000	5300	4883.33
Mean of Factor-1						
	1	2818.33	3522	4277.77	2710.33	2842.33
	2	2830	4664.67	4416.67	4751.67	3902
	3	3860	5143.33	4049.93	5699.63	4881.67
CD(0.05)		85.21	369	ns	64.46	193.74
CV(%)		5.86	18.11	14.62	3.2	10.9
Mean of Factor-2						
	1	3061.11	4808.89	4490.78	4143.33	3752.22
	2	3027.78	4574.44	4814.89	4388.78	2857.78
	3	3216.67	3568.89	4953.67	4421.11	3706.67
	4	3127.78	4187.78	4305.67	4461.11	3490
	5	3216.67	4951.11	4074	4434.44	4293.33
	6	3983.33	4194.44	3175.89	4496.67	4488.89
	7	2527.78	3841.11	3509.22	4252.22	2883.33
	8	2733.33	4830	4620.33	4522.22	4834.44
	9	3655.55	4735.56	3518.33	4427.78	4731.11
	10	3144.44	4741.11	5018.44	4324.45	3715.55
CD(0.05)		269.63	910.09	658.28	193.54	376.89
CV(%)		9.02	21.72	16.44	4.68	10.32
M and T		467.01	ns	ns	ns	ns
T and M		445.96	ns	ns	ns	ns
Experimental Mean		3169.44	4443.33	4248.12	4387.21	3875.33

Figure 28a: Multilocation report of Split plot Analysis generated to Excel in AICRIP Intranet

ix)State/Zone/Hill Elevation wise Analysis for Plant Breeding

After analysing center wise data, this analysis can be done using **Plant Breeding Grain Yield report** menu item in **Manage Reports**. By selecting the trial and year from drop down boxes and using **State Analysis, Zonal Analysis, BCH (Best Check), HCH (Hybrid Check) and PB_Rank buttons**, multilocation

analysis can be done. By using **Report** command button, the consolidated reports with location, state and zonal means, ranks, performance over checks, CD and CV values are generated to Excel file. Similarly ,Hills Elevation report can be generated using **Hill Elevation report** in the **Manage reports** (Fig. 29).

Aicrip Experimental Database (AICRIP-MIS)

Admin Home | Logout — Welcome, admin Change password

Plant Breeding Grain Yield Report — Back

Select Department : Plant Breeding
Select Year : 2019
Trial No : AVT 1_E_TP_Kharif_2019
Select Parameter : GY

[State Analysis] [Zonal Analysis]
[BCH] [HCH]
[PB_Rank] [Report]

Plant Breeding State Analysis Completed

Hills Grain Yield Report — Back

Select Department : Plant Breeding
Select Year : 2019
Trial No : AVT 2-E(H)_Kharif_2019

[Rank] [Report]

Rank calculation is over

Entry No	IET No	BKMG	BR (1)	CHN	WB (1)	CTK	OR (1)	MSD	UP (1)
								Z3 BR WB OR UP M	
1	27882	3569.02	3569.02	5096.08	5096.08	5200 5*8.94%	5200 5*8.94%	5366.67 4*15%	5366.67 4*15%
2	27874	3658.81	3658.81	4177.11	4177.11	3780	3780	5400 2*15.71%	5400 2*15.71%
3	27869	6217.74 5*23.11%	6217.74 5*23.11%	4093.57	4093.57	4466.67	4466.67	5366.67 3*15%	5366.67 3*15%
4	27866	5858.59 7*16%	5858.59 7*16%	5597.33 7*11.05%	5597.33 7*11.05%	4706.67 10#2.47%	4706.67 10#2.47%	4633.33	4633.33
5	27892	4511.78	4511.78	4873.29	4873.29	4473.33	4473.33	4533.33	4533.33
6	27890	5499.44	5499.44	5123.92	5123.92 8*1.66%	3093.33	3093.33	5166.67	5166.67 6*10.71%
7	27885	5768.8 9*14.22%	5768.8 9*14.22%	5040.38	5040.38 1*0.55%	4433.33	4433.33 4	5066.67	5066.67
8	27907	5454.55	5454.55	5263.16 10*4.42%	5263.16 10*4.42%	3466.67	3466.67	3866.67	3866.67
9	27914	5970.82 6*18.22%	5970.82 6*18.22%	5402.39 8*7.18%	5402.39 8*7.18%	3986.67	3986.67	3866.67	3866.67 1#22.11%
10	27920	4107.74	4107.74	5068.22	5068.22	4286.67	4286.67	5166.67	5166.67
11	27870	5611.68	5611.68	5040.38	5040.38	4406.67	4406.67	3500	3500
12	27887	4489.34	4489.34	4901.14	4901.14	4006.67	4006.67	3533.33	3533.33
13	27917	6980.92 3*38.22%	6980.92 3*38.22%	6683.38 1*32.6%	6683.38 1*32.6%	5340 4*11.87%	5340 4*11.87%	5433.33 1*16.43%	5433.33 1*16.43%
14	27905	6509.54 4*28.89%	6509.54 4*28.89%	6460.6 2*28.18%	6460.6 2*28.18%	5153.33 6*7.96%	5153.33 6*7.96%	5233.33 9*12.14%	5233.33 9*12.14%
15	27893	5521.89	5521.89	6042.89 4*19.89%	6042.89 4*19.89%	4493.33	4493.33	4566.67	4566.67
16	27883	4893.38	4893.38	5179.62	5179.62	3786.67	3786.67	4833.33	4833.33
17	27871	7542.09 1*49.33%	7542.09 1*49.33%	5318.85 9*5.52%	5318.85 9*5.52%	3713.33	3713.33 6	3800	3800 7#20%
18	27923	7227.84 2*43.11%	7227.84 2*43.11%	4037.87	4037.87 3	4833.33 8*1.26%	4833.33 8*1.26%	4033.33	4033.33 5#27.37%
19	CO 51 (NC)	4444.44	4444.44	4316.35	4316.35	4773.33 9*1.26%	4773.33 9*1.26%	4666.67	4666.67
20	27329	4085.29	4085.29	4761.9	4761.9	4526.67	4526.67	4333.33	4333.33
21	27328	5297.42	5297.42 8*4.89%	4873.3	4873.3 7	4220	4220	4866.67	4866.67 3*4.29%
22	27332	5791.25 8*14.67%	5791.25 8*14.67%	5040.38	5040.38 10*0.55%	6653.33 3*39.39%	6653.33 3*39.39%	4966.67	4966.67 10*6.48%
23	27342	3613.91	3613.91 9	5903.65 5*17.13%	5903.65 5*17.13%	7466.67 1*56.42%	7466.67 1*56.42%	5200 10*11.43%	5200 10*11.43%
24	27343	4017.96	4017.96 10	5123.92	5123.92 9*1.66%	4873.33 7*2.09%	4873.33 7*2.09%	5066.67	5066.67 4*8.57%
25	27340	4354.66	4354.66	4956.84	4956.84	6840 2*43.3%	6840 2*43.3%	5366.67 5*15%	5366.67 5#6
26	US 314 (HC)	5050.5	5050.5 1*9.02%	5040.38	5040.38 6*0.55%	4593.33	4593.33	3166.67	3166.67 2
27	26898	5723.91 10*13.33%	5723.91 10*13.33%	5680.87 6*12.71%	5680.87 6*12.71%	3980	3980	5366.67 6*15%	5366.67 6*15% #6
28	27894	4085.29	4085.29 5	5151.77	5151.77 4*2.21%	4566.67	4566.67 1	4866.67	4866.67
29	26464	4377.1	4377.1	6209.97 3*23.2%	6209.97 3*23.2%	3700	3700	5233.33 8*12.14%	5233.33 8*12.14%
30	27891	5095.4	5095.4	4901.14	4901.14	4453.33	4453.33 9	5133.33	5133.33
31	27880	3658.81	3658.81	5151.77	5151.77	1793.33	1793.33	5366.67 7*15%	5366.67 7*15% #6
Experimental Mean		5128.71	5128.71	5177.82	5177.82	4518.28	4518.28	4740.86	4740.86

GY
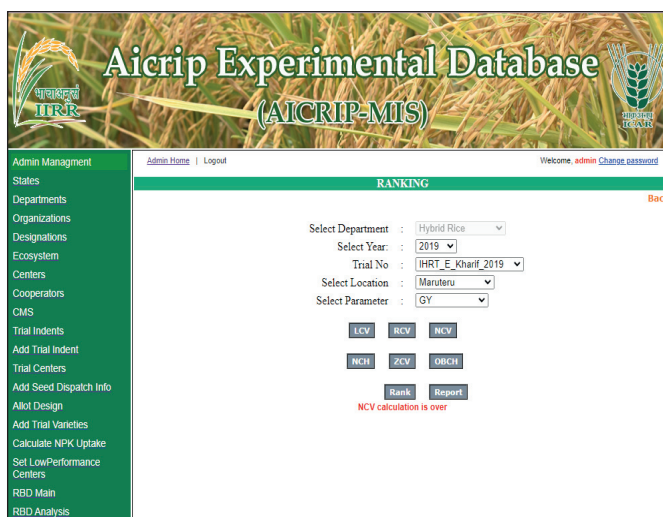
Entry No	IET No	Low Northern HP MLN	Low Northern (1)	Low Southern KA PNP	Low Southern (1)	Medium Northern UK ALM
1	28879	918.75	918.75	2009.26	2009.26	1718.75
2	28880	2232.14	2232.14	1879.63	1879.63	1760.42
3	28881	982.15	982.15	1398.15	1398.15	1807.29
4	28882	3169.64 7	3169.64 7	2810.19	2810.19	5416.67 1 * 15%
5	28883	3169.64 7	3169.64 7	2560.19	2560.19	5312.5 2 * 12%
6	Shalimar Rice-3 (ZC)	2641.07	2641.07	3106.48 7	3106.48 7	0
7	28884	4044.64 2 * 7%	4044.64 2	4037.04 2 * 14%	4037.04 2	4979.17 5 * 5%
8	28885	2721.43	2721.43	2587.97	2587.97	3968.75 9
9	28886	2946.43	2946.43	2541.67	2541.67	5218.75 3 * 10%
10	28887	3705.36 4	3705.36 4	3263.89 5	3263.89 5	4989.58 4 * 6%
11	28888	1419.64	1419.64	2574.08	2574.08	2812.5
12	28889	3035.72 9	3035.72 9	3069.45 9	3069.45 9	2343.75
13	28890	4455.36 1 * 17%	4455.36 1	4638.89 1 * 30%	4638.89 1	2343.75
14	Vivekdhan 86 (NC)	3794.65 3	3794.65 3	2916.67	2916.67	4722.92 6
15	28891	3348.22 6	3348.22 6	3106.48 7	3106.48 7	4114.59 8
16	28892	3035.72 9	3035.72 9	2532.41	2532.41	3947.92 10
17	28893	1785.72	1785.72	3023.15	3023.15	3110.42
18	28894	2016.08	2016.08	2861.11	2861.11	2097.92
19	28895	2793.75	2793.75	3319.45 4	3319.45 4	4375 7
20	28896	1517.86	1517.86	2763.89	2763.89	2239.59
21	28897	2098.21	2098.21	2495.37	2495.37	2187.5
22	28898	1718.75	1718.75	3037.04 10	3037.04 10	3104.17
23	28899	3517.86 5	3517.86 5	3134.26 6	3134.26 6	1041.67
24	28900	1741.07	1741.07	1430.56	1430.56	2031.25
25	Local Check	2232.14	2232.14	3555.56 3	3555.56 3	3447.92
Experimental Mean		2601.68		2826.114		3295.531
CD(0.05)		853.01		573.61		995.72
CV(%)		15.89		9.83		14.6

1. * Denote superior to BCH
2. # Denote superior to HCH
3. @ : Centers with CV<5 or CV>20
4. Analysis values successfully validated with the Gomez & Gomez example

Figure 29: State/Zone/Hill Elevation wise Analysis and Excel Report for Plant Breeding department in AICRIP Intranet

x)Ranks and performance over checks- Hybrid Rice

Hybrid Rice Report in **Manage Reports** will be used for computation of performance over checks and ranks of Grain Yield in Hybrid Rice Trials. After selecting the Year, Trial and Center, by using **LCV (Local Check Variety), RCV(Regional Check Variety), NCV(National Check Variety), NCH(National Hybrid Check), ZCV(Zonal Check Variety), OBCH(Best Check) and Rank** command buttons, performance over checks and ranks are calculated. By using the Report button, consolidated report will be generated to Excel file (Fig.30).

	GY						
	GY						
Treatment No	Treatment Name	MTU	MND	KUL	PNT	IIRR	CHN	LDH
1	E-3001	$*~7586.00(1)	@8900.33	@$~6066.67(5)	@$~8095.33(1)		@$*~8698.00(1)	$6674.00(10)
2	E-3002	$*4595.00(7)	@9013.00	5066.67	@5035.67	5157.00(7)	$6253.00(11)	########
3	E-3003 (NCH)	2714.33	@$~11533.00(1)	@$~6100.00(3)	@$~7254.00(3)	4923.00(11)	6018	$6566.33(11)
4	E-3004	$*4674.67(6)	@9162.33(9)	5433.33(8)	@$~7245.33(4)	4133	########	$~7389.00(5)
5	E-3005	3143	@9128.67(10)	4600	@4852.33	@$*~7017.67	$6347.00(10)	$*~7796.33(3)
6	E-3006	3224.33	@$~10523.00(4)	5200.00(10)	@$~6376.33(8)	5183.67(6)	@$*~7945.33(2)	$6677.67(9)
7	E-3007	*3718.67(10)	@9249.33(8)	5133.33	@5328.33	4839.33	@$*~7146.00(7)	4289.33
8	E-3008 (ZCV)	$*6980.33(3)	8401.33	5000	@5149.67	5153.67(8)	6018	########
9	E-3009	$*4874.67(4)	@$~10714.33(3)	5466.67(7)	@$~6268.67(10)	5097.33(9)	@$*~7804.33(3)	$7048.00(8)
10	E-3010	*3715.00(11)	@9018.00(11)	@$~6100.00(3)	@$~6912.00(6)	@5602.67(4)	@$*~7475.00(4)	$*~8962.67(1)
11	E-3011	*3703.67	@~10145.00(5)	4266.67	@$~7313.00(2)	@5779.33(2)	@$*~7428.00(5)	$7178.00(7)
12	E-3012	3086.33	@~10133.33(6)	5400.00(9)	@$~6534.00(7)	4349	@$*~6911.00(8)	$*~7537.00(4)
13	E-3013	*4079.67(9)	@~9840.00(7)	@$~5833.33(6)	@5853.33	5477.00(5)	5736	########
14	E-3014 (NCV)	*3692.67	@8920.67	5166.67(11)	@4934.00	4392.33	5360	3488.67
15	E-3015	$*4467.00(8)	@$~10885.67(2)	@$~6466.67(2)	@$~7228.67(5)	5082.00(10)	@$*~7193.00(6)	$7222.00(6)
16	E-3016	2228.33	@8890.00	@$~6600.00(1)	@5917.33(11)	@5759.67(3	5783	########
17	E-3017		7349.33		@$~6307.00(9)		@$*~6723.00(9)	########
18	E-3738 (LCV)	$*7007.33(2)	7513	5133.33	3738	3861.33	5736	$*~8430.00(2)
19	E-3019	$*4813.00(5)	8048.67		@5601.67		5924	########
Experimental Mean		4350.222222	9335.21	5472.549	6102.351	5113	6663.719	6550.474
CD(0.05)		591.2	1252.42	535.67	1106.92	1699.22	685	926
CV(%)		8.69	8.13	5.93	10.99	19.93	6.23	8.57
res1		**	**	**	**	ns	**	**
res2		*	*	**	ns	ns	ns	*

**-Highly Significant;*-significant;ns-not significant

1. @ Denote superior to LCV
2. # Denote superior to RCV
3. $ Denote superior to NCV
4. * Denote superior to NCH
5. ^ Denote superior to OBCH
6. ~ Denote superior to ZCV

Figure 30: Ranks and performance over checks report for Hybrid Rice department in AICRIP Intranet

xi) Screen Pest Analysis and Reports

After selecting the screening pest trial, pest, centre, promising level and by using **Change P Level** (promising level), **Calculate NPT (**No. of Promising Tests) **and Frequency buttons**, NPT and Frequency are calculated and reports will be generated to Excel files (Fig.31).
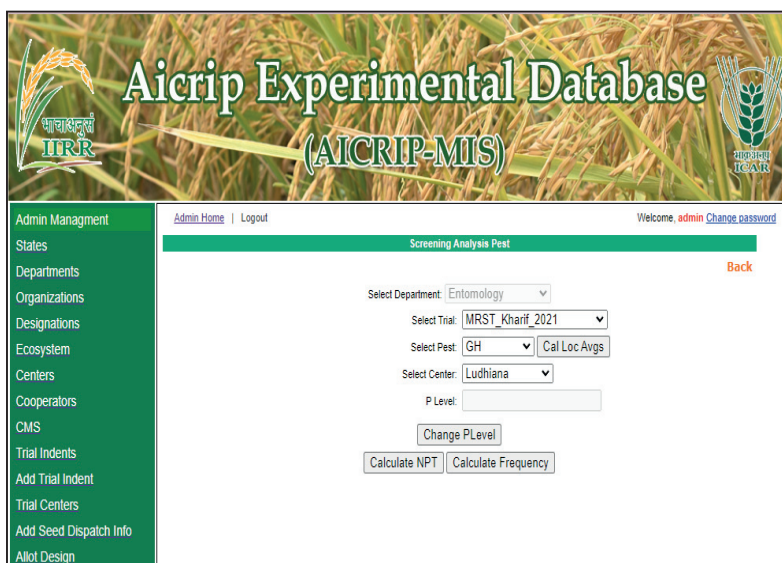
Figure 31: Screening pest analysis and report interface of AICRIP Intranet

vi) Screen Disease Analysis and Reports

After selecting the Screening Disease trial, disease, center and by using Entry wise Avg, Calculate Frequency, Frequency Report command buttons, consolidated reports will be generated to Excel files (Fig. 32).
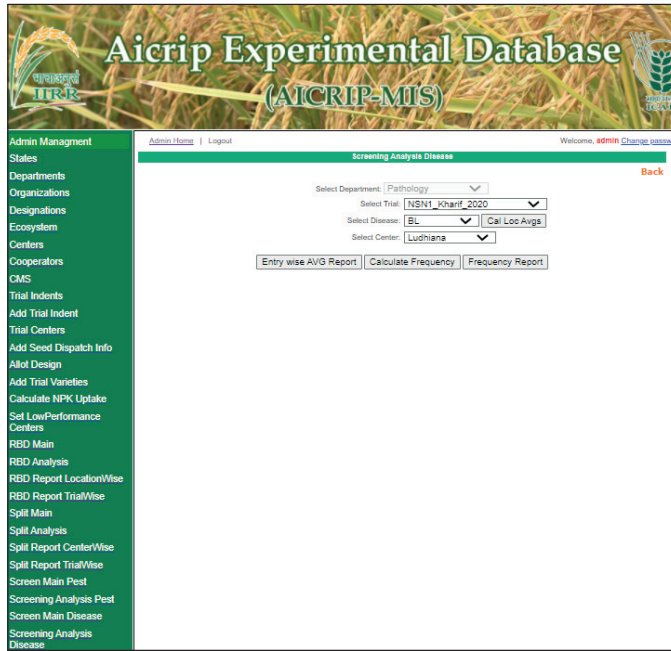
Figure 32: Screening disease analysis and report interface of AICRIP Intranet

Menus in Users privilege

Trial Indent

User has to select **Trial Indent** from the left side of the Menu and select **Year** from the drop down box, then two list boxes will appear on the screen. Left side box contains list of all trials for that discipline and allotted trials will be displayed in the right side box (Fig. 33).

By selecting trials from the left side box and by using greater than symbol (" >>") , selected trials will be allotted to centers. Further by using the submit button, screen will display small window showing that the trail has been successfully submitted. User can select trial one by one or for multi selection hold control key and select multi trials and press >> button. For deleting selected trials, select trials from right side box and use << button. Then the trials will be revert back and not allotted.
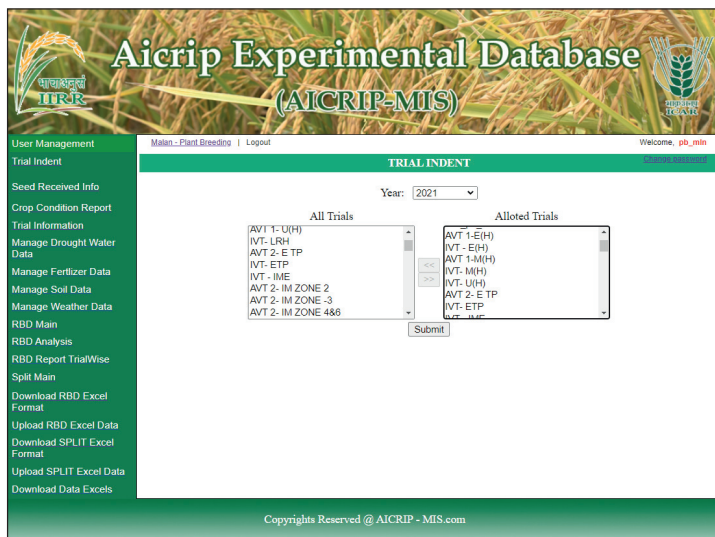
Figure 33: Trial Indent user interface of AICRIP Intranet

Seed Received Confirmation

User has to select **Seed Received** menu item for entering seed receiving details. By selecting **Department Name** from drop down box, list of trials in the respective department including dispatch details will be displayed. Then by selecting the **Edit button,** seed received date and remarks can be entered. Finally using the **Update button,** data will be updated (Fig. 34).
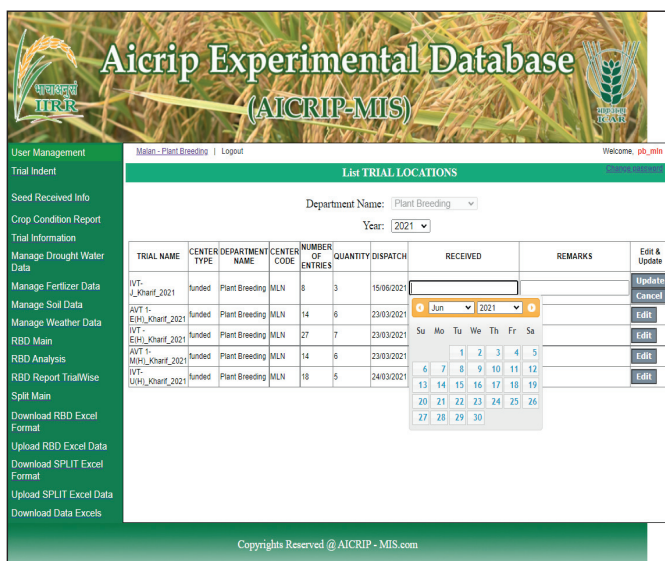
Figure 34: Seed Receipt Confirmation user interface of AICRIP Intranet

Crop Condition

By selecting **crop condition** menu item from left menu, crop condition details like sowing dates, monthly remarks on different problems and virtual field monitoring details can be entered. Then the allotted trials for the respective discipline of that center will be displayed. User has to fill the information like dates of sowing/ planting for each trial (Fig. 35)
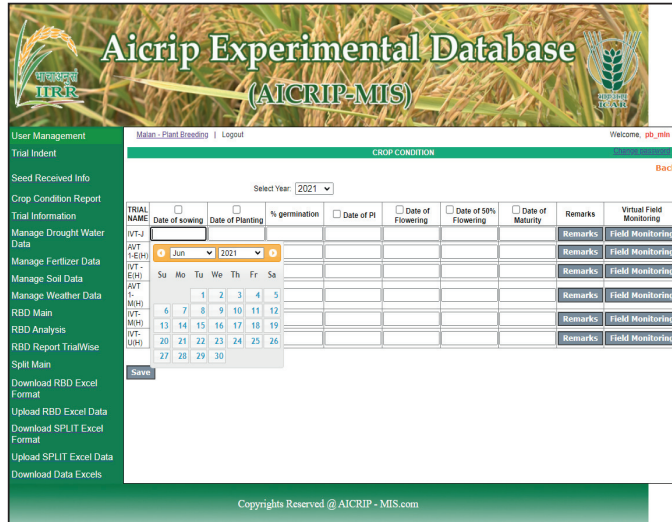
Figure 35: Crop Condition user interface of AICRIP Intranet

By using **Remarks** button monthly remarks will be entered and using the save button the data will be saved to the database (Fig. 36).

Figure 36: Monthly Remarks user interface of AICRIP Intranet

By Using **Field Monitoring** Button in **Crop Condition** form field monitoring images can be uploaded. User has to enter the details of **trial name, variety name, crop stage, crop condition and** by using **Choose File** and **Upload image1/ image2/ image3** images can be uploaded. By clicking save button, all the images will be uploaded to the database. **Preview image** button is used to preview the uploaded images. If no images are uploaded it will display the message that **No Images are uploaded** (Fig. 37).

Figure 37: Field Monitoring user interface of AICRIP Intranet

Trial Information

By using **Trial Information** menu item from the left side of the menu, **List of Trial Information** and **Add Trial Information** menu items will be displayed. Uploaded trail information data can be viewed by selecting the trial and new information can be added using **Add Trial Information** menu item from the top left corner of the menu after the banner.

The information on gross plot size, net plot size, date of sowing and planting etc. will be entered using this form. Dates will be selected by the help of calendar. After filling the form, using the **Add** button, the data will be saved in the Intranet database (Fig. 38).
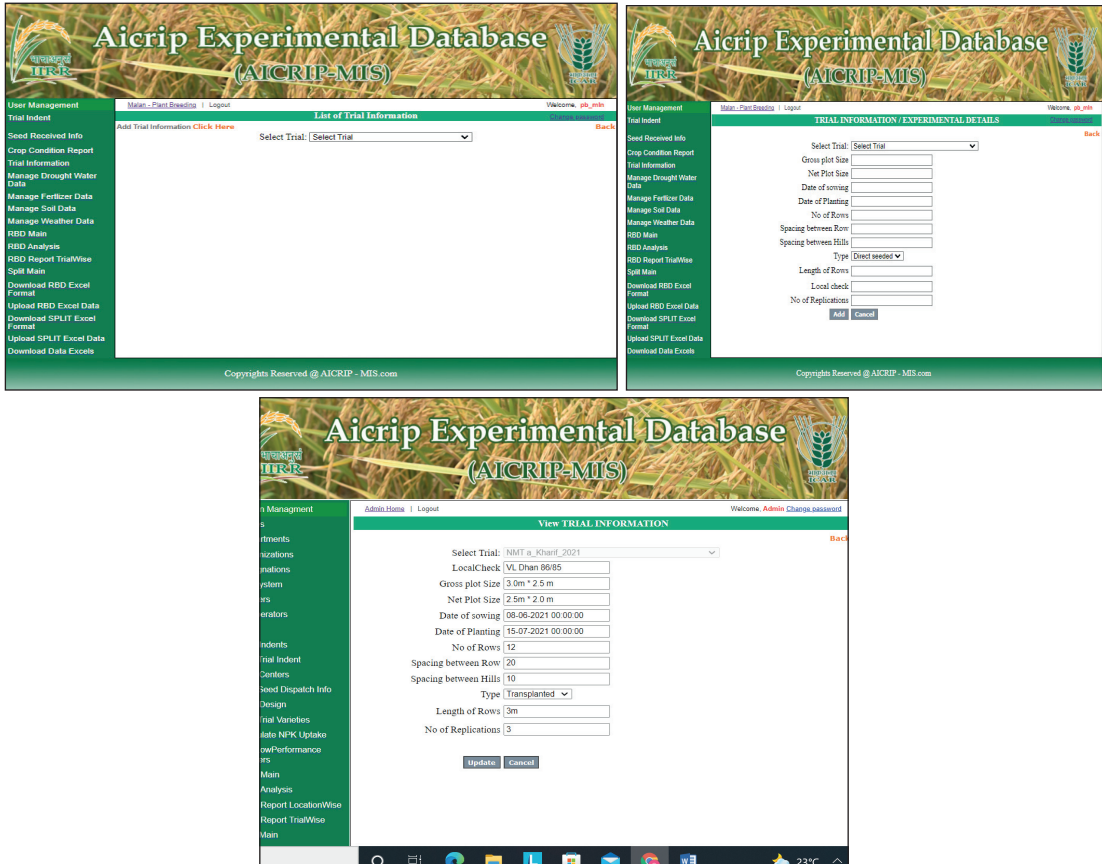
Figure 38: Trial Information user interface of AICRIP Intranet

Manage Weather Data

Day wise weather data can be entered using **Manage weather data** menu item. **List Weather** and **Add Weather from Excel** menu items will be displayed. **List Weather** menu item will display the uploaded weather information. By using Add Weather from Excel, month wise weather data can be added to the database of Intranet.

Firstly user has to select year and month from drop down box then use the **copy from Excel** option to copy and paste data in the Excel interface. Then copy and

paste data as per the order of parameters displayed in the sample sheet. By using **Click hear to copy data from Grid** button, the data will be copied to the grid. The data will be saved in the server database by using **Add** button (Fig. 39)**.**
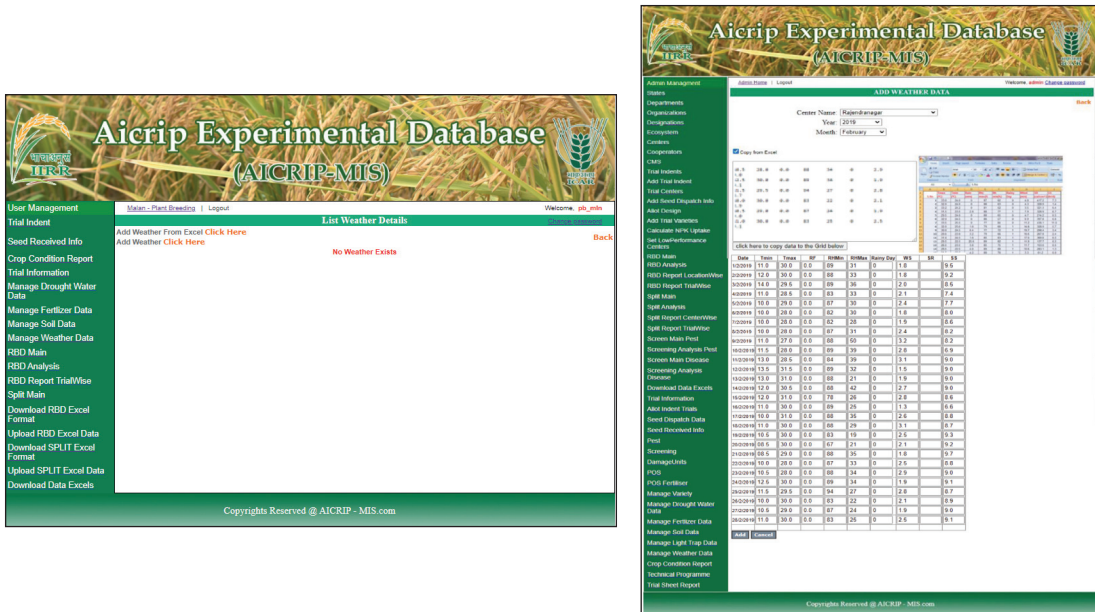
Figure 39: Manage Weather data user interface of AICRIP Intranet

RBD Design

Trials with RBD design will be entered using **RBD Main** menu item. List **RBD** can be used for viewing uploaded RBD trials and **Add RBD Click Here** can be used to enter RBD data. User has to select **Year** and **Trial** from the respective drop down boxes to View/Add RBD trials.

Then **Parameter Name** field will be displayed along with number of treatments and number of replications. By selecting parameters one by one and using **Add button,** grid will be displayed for entered replications and treatments (Fig. 40).

By using Copy from Excel option, the interface will be displayed to copy and paste excel data and by using Click to copy button, the data will be copied to the grid and then using Save button, data will be saved in centralised server database (Fig. 41). The uploaded data can be viewed by using List RBD menu Item (Fig. 42).

Figure 40: Add RBD Main user interface of AICRIP Intranet

Figure 41: RBD Detail data entry user interface of AICRIP Intranet
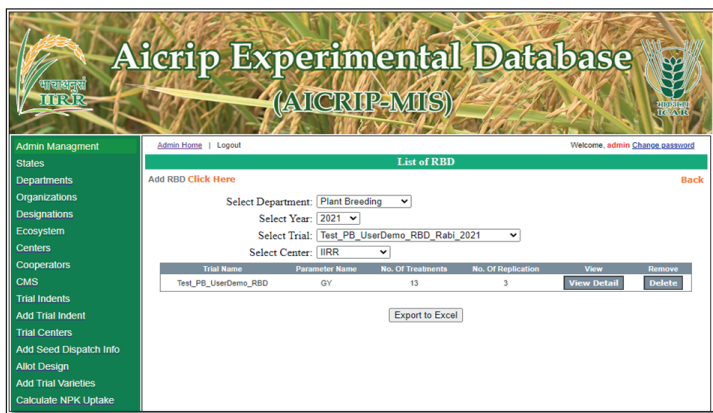
Figure 42: List RBD Trials user interface of AICRIP Intranet

RBD Analysis

By Selecting **RBD Analysis Menu** item from the left side menu, RBD analysis user interface will be displayed. By selecting **Year, Trial and Parameter** from respective drop down boxes and using **Process** Button, RBD data will be analysed. There are four options to select the transformations (N: No Transformation; A: Arcsine; S: Square Root ; H: Hectare conversion). By default N option is selected (Fig. 43).
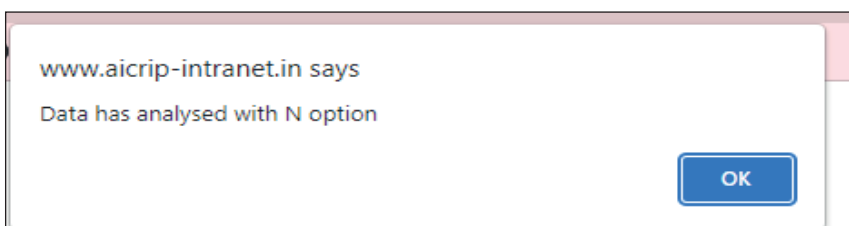
Figure 43: RBD Analysis user interface of AICRIP Intranet

RBD Report Generation

RBD Report Trial/Center wise menu items will be selected for RBD report. User has to choose **Year and Trial** and by using **Get Report** command button, report will be generated to Excel (Fig. 44).
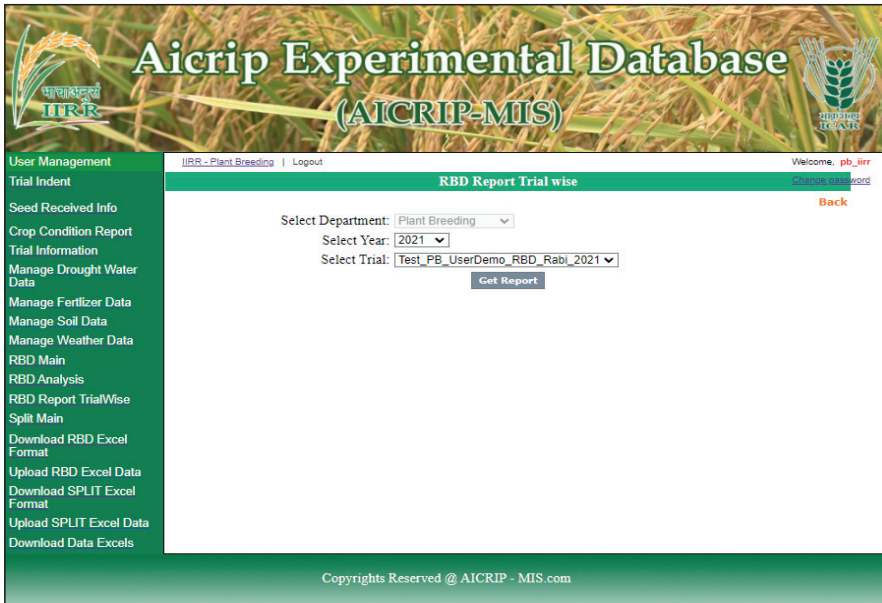
	GY		
Treatment No	Treatment Name	DRR	
1	2301	7586	
2	2302	4595	
3	2303	2714.33	
4	2304	4674.67	
5	2305	3143	
6	2306	3224.33	
7	2307	3718.67	
8	2308	6980.33	
9	2309	4874.67	
10	2310	3715	
11	2311	3086.33	
12	2312	3748.67	
13	2313	3509	
Experimental Mean		4274.615	
CD(0.05)		899.84	
CV(%)		12.49	
res1		**	
res2		ns	

** If the computed F value is greater than the tabular F value at 1% level of significance, then the treatment difference is said to be highly significant
* If the computed F value is greater than the tabular F value at 5% level of significance but less than or equal to the tabular value at 1% level , then the treatment d
ns- If the computed F value is less than the tabular F value at 5% level of significance, then the treatment difference is said to be non significant

Figure 44: RBD Report user interface and excel report of AICRIP Intranet

Split Plot Design

Trials with Split plot design will be entered using **Split Main** menu item. **List Split** can be used for viewing uploaded Split plot trials and **Add Split Click Here** can be used to enter split plot design data. User has to select **Year** and **Trial** from the respective drop down boxes to View/Add Split trials.

Then **Parameter Name** field will be displayed along with number of replications,treatments and levels (main and subplots). By selecting parameters one by one and using **Add** button , grid will be displayed for entered replications, treatments and levels (Fig. 45).

By using **Copy from Excel** option, the interface will be displayed to copy and paste excel data and by using **Click to copy** button, the data will be copied to the grid and then using **Save** button, data will be saved in centralised server database (Fig. 46). The uploaded data can be viewed by using **List Split** menu Item (Fig. 47).
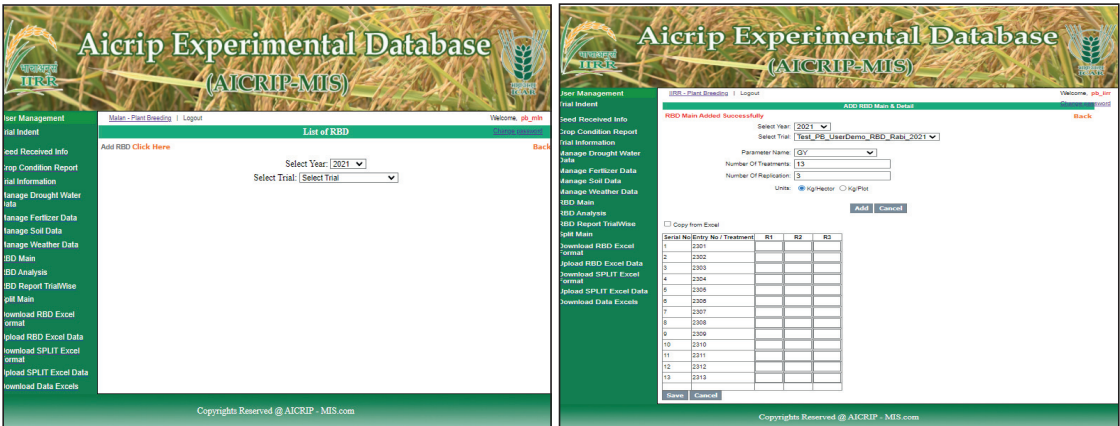

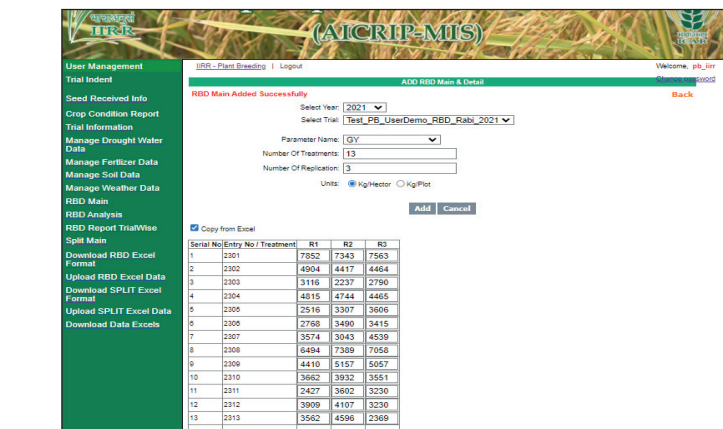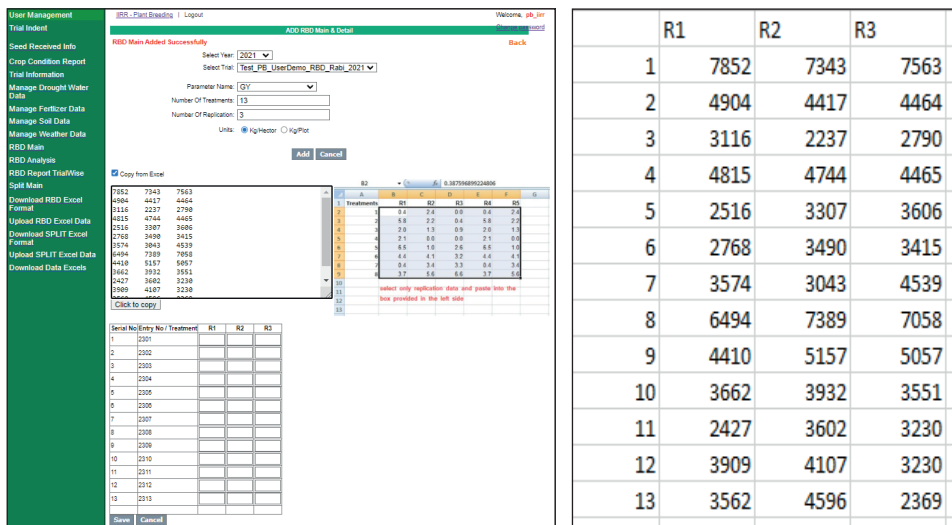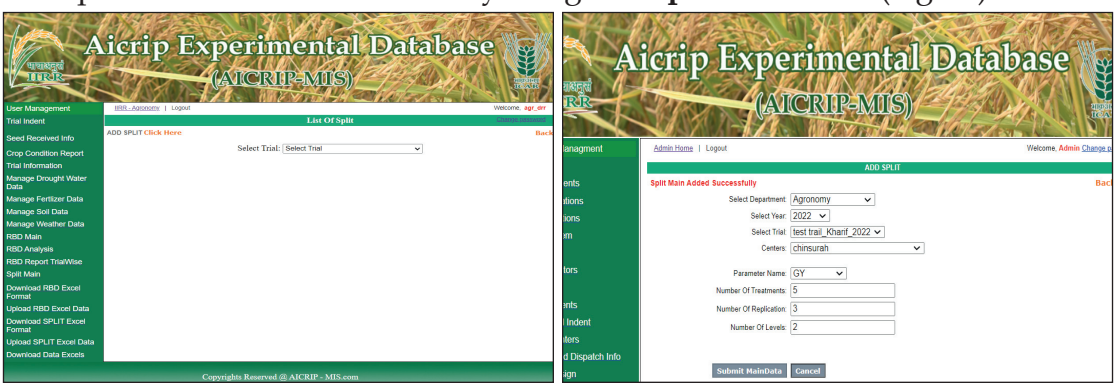Figure 45: Add Split Main user interface of AICRIP Intranet
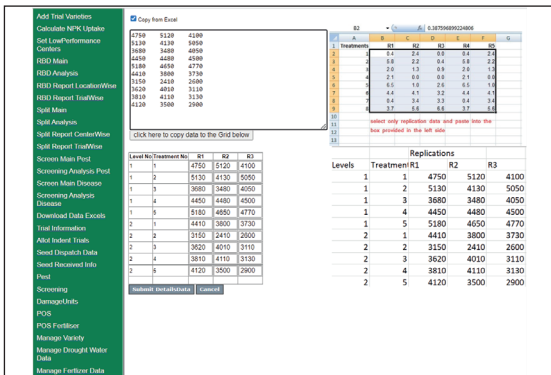
Figure 46: Split Detail data entry user interface of AICRIP Intranet
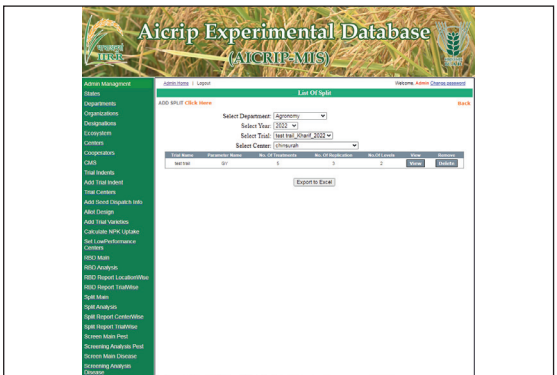
Figure 47: List Split Trials user interface of AICRIP Intranet

Split plot Analysis

By selecting **Split Analysis Menu item** from the left side menu, Split Analysis user interface will be displayed. By choosing Year, Trial and Parameter from respective drop down boxes and using **Process** Button, Split data will be analysed. There are four options to select the transformations (N: No Transformation; A: Arcsine; S: Square Root ; H: Hectare conversion). By default N option is selected (Fig. 48).
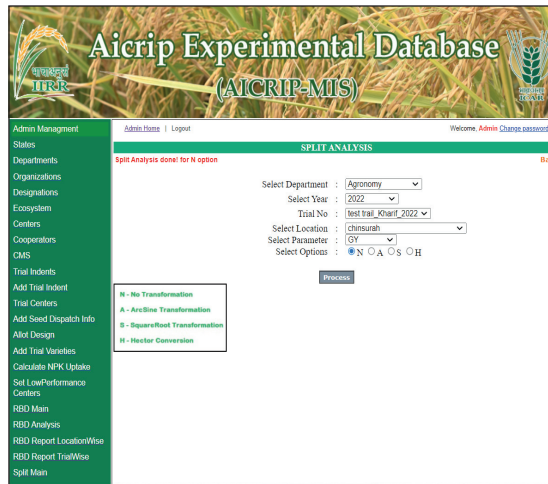
Figure 48: Split plot Analysis user interface of AICRIP Intranet

Split plot Report Generation

Split Report Trial/Center wise menu items will be selected for Split plot report. User has to choose **Year and Trial** and by using **Get Report** command button, report will be generated to Excel (Fig. 49).
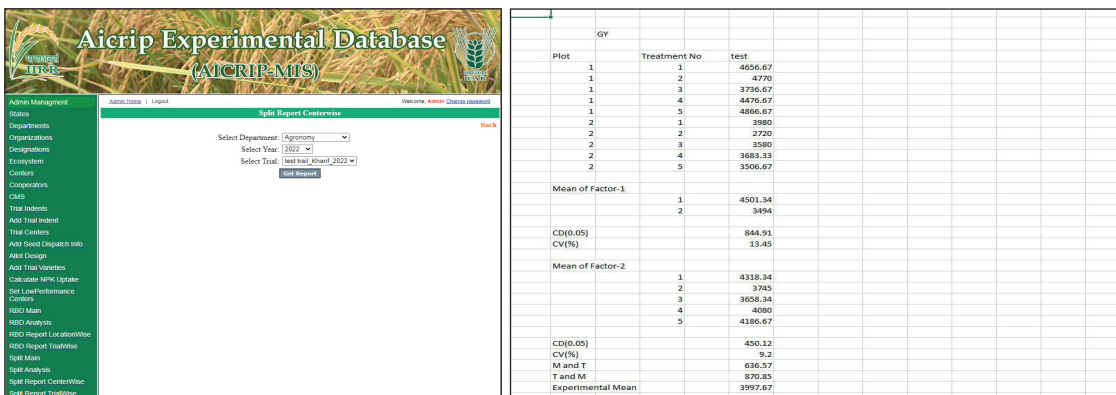
Figure 49: Split Plot Report user interface and excel report of AICRIP Intranet

Screening Nurseries for Pests

User has to select **Screen Main Pest** from the left side of the menu and then use **Add Screen Main Pest Click here** to enter the data on screening nurseries for pests. Add Screen Main Pest form will be displayed.

Figure 50: Screening Main Pest user interface of AICRIP Intranet

Then by choosing the **Trial, Center, Pest, Damage units** and **Type of Evaluation** (GH: Green House or F: Field) from the respective drop down boxes and by entering **crop age, number of entries and P level (Promising Level) and by using** submit button, data will be uploaded in the intranet database (Fig. 50).

By using Copy **from Excel** option, the interface will be displayed to copy and paste excel data and by using **Click to copy** button, the data will be copied to the grid and then using **Save** button, data will be saved in centralised server database (Fig. 51).

Figure 51: Screening Pest incidence data entry user interface of AICRIP Intranet

Screening Nurseries for Diseases

User has to select **Screen Main Disease** from the left side of the menu and then use **Add Screen Main Disease Click here** to enter the data on screening nurseries for diseases. Add Screen Main Disease form will be displayed.

Then by choosing the **Trial, Center, Disease,** from the respective drop down boxes and by entering **number of entries and by using** submit button, data will be uploaded in the intranet database (Fig. 52).

By using **Copy from Excel** option, the interface will be displayed to copy and paste excel data and by using **Click to copy** button, the data will be copied to the grid and then using **Save** button, data will be saved in centralised server database (Fig. 53).
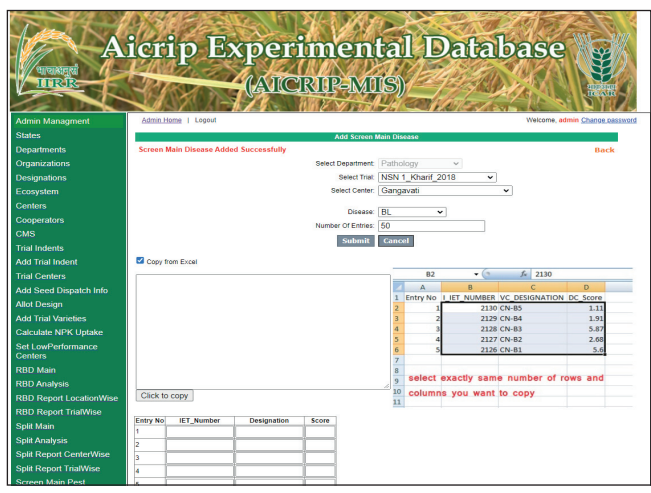
Figure 52: Screening Main Disease user interface of AICRIP Intranet
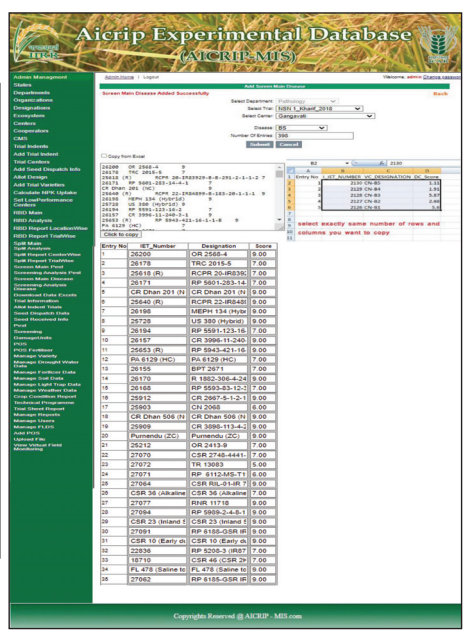
Figure 53: Screening Disease score data entry user interface of AICRIP Intranet

Conclusion

AICRIP Intranet portal is the first experimental data portal in ICAR covering the experiments/trials from seven disciplines. This portal was designed with the concept of database management for easy retrieval and reuse of data. The major problem of the time and labour in arranging the data for analysis and reports will be drastically reduced by using this portal. Data will be directly added to the centralized database in the prescribed format and maintained on the server. The data can be easily analysed with the aid of user friendly interfaces and reports will be generated as per the format of final tables in the progress reports. Reports are generated to excel files for ease of copy and paste the data in progress reports. Once centers upload data through AICRIP Intranet, the job of coordinating center will be checking and analysing the data and generating the report in Intranet. The data is maintained in uniform format in the central database at IIRR. Further, this data will be useful for assessing the performance of genotypes to different stresses over the years across disciplines and locations. At present, trial wise consolidated reports

are designed for individual disciplines across locations. Further, Additional queries like performance of technologies across trials, disciplines and centers over the years will be added to the portal.

Of late the technology revolution in ICT is moving towards Precision farming, Artificial Intelligence and machine/deep learning platforms, AICRIP Intranet data will be of great use for developing intelligent prediction models suitable to different rice growing regions. This system has been successfully using by AICRIP cooperators since 10 years and every year, it is upgrading with new features as per the requirement.

Although, this platform specifically designed for rice crop, the frame work can be easily adopted for any other crops wherein multilocation trials are being conducted. Successful adoption of this frame work will provide a robust platform for collection and analysis of multilocation experiments. Interfaces can be built for handling the data using handheld devices like for tablets, smart phones etc. This will help further improving the reach and usability of the system especially in collection, transmission and even analysis of the huge datasets.

References

Efren C. Altoveros. https://discipline.ku.ac.bd/uploads/offered-course-material/1 Experimental_Designs_English.pdf. Accessed on 11.4.2022.

ICAR-Indian Institute of Rice Research, Progress Report. 2019. Vol. 1, Varietal Improvement, All India Coordinated Rice Improvement Project (AICRIP), Rajendranagar, Hyderabad-30, Telangana State, India.

Kumar Sanjeev, I.e. Sethi and A. Arora. 2006. On-line Data Management System for Long Term Fertilizer Experiments. J. Ind. Soc. Agril. Statist. 60(3), 162-168.

Nagarajan S, Muralidharan K. 1995. Dynamics of plant diseases. Allied Publishers, Hyderabad, India. 248 p.

Onny Rafizan, Vidyantina Heppy Anandhita. 2017. Design of Information System For Research data Management. Journal Penelitian Pos dan Informatika, 7(2), 143-154, DOI: 10.17933/jppi.2017.070206.

Pathak H, Voleti SR, Meera Shaik N, Tripathi R, Sailaja B, Nayak AK, Subba Rao LV, Mondal B, Reddy JN and Mohapatra T. 2019. Reorientation of All India Coordinated Crop Improvement Projects: The Case of Rice. NRRI Technical Bulletin No.18. ICAR-National Rice Research Institute, Cuttack 753 006, Odisha, India. pp 20+viii.

Sailaja, B., K Muralidharan and B Mishra. 2004. A software for assessing reaction of genotypes to pathogens in multilocational tests. J.Mycol.Pl. Pathol. 34(2).

Sailaja, B., Shaik N. Meera and B. C.Viraktamath. 2012. Manual for AICRIP Information Management System (http://www.aicrip-intranet.in). Technical Bulletin No.61. Directorate of Rice Research (ICAR), Rajendranagar,Hyderabad – 500 030, A.P., India, pp. 37.

Sailaja, B., Shaik N. Meera, S. Gayatri, R. Nagarjuna Kumar and V. Ravindra Babu. 2016. Dealing With Big Data in Agriculture through Management Information System : A Case of Coordinated Rice Research. Int. J. Agricult. Stat. Sci. Vol. 12, No. 2, pp. 537-545.

Subba Rao LV, Fiyaz RA, Jukanti AK, Padmavathi G, Badri J, Anantha MS, Nagarjuna E and Voleti SR. 2019. Coordinated Rice Improvement Project in India: Its Significant Achievements and Future prospects. Oryza Vol. 56 (Special Issue), 82-91.DOI https://doi.org/10.35709/ ory.2019.56.spl.1 .

Impacts so far

Journey of AICRIP Intranet

AICRIP Intranet launched during 2011 with few simple features like seed receipt ,crop condition and direct entry interfaces of RBD and Split plot designs. It has been improved time to time with new features as per the requirements of AICRIP PIs and Cooperators. During 2013-16, cooperators were sensitised through presentations on AICRIP Intranet during the pre workshop group meetings and main workshop meetings.
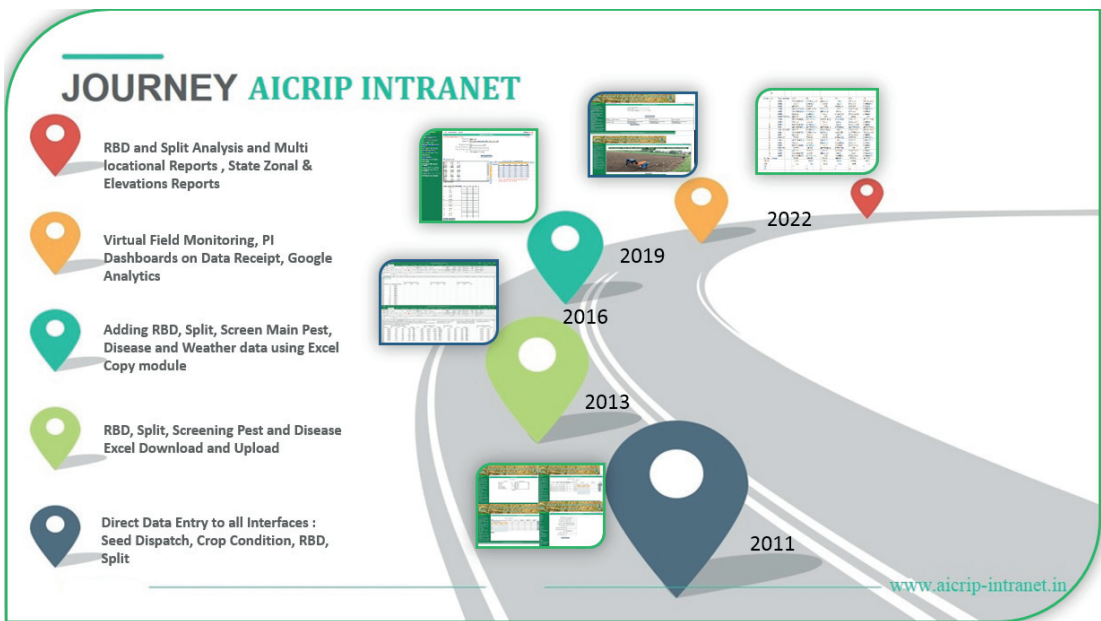
During 2016, Excel upload and download interfaces were added to Intranet to ease the data entry to different modules. Excel download generates preformatted excel sheets with allotted trials. User has to fill the data as per the format and upload the same in Intranet without changing the formats and parameter names. Many centers uploaded data using these features. The problem faced in these features are changing the format of excel, changing the parameter names etc. Early 2019, new features like Excel interface for data entry was introduced in Intranet for all the data entry modules. User has to select trial, parameter and paste the data from Excel into **Excel interface** of Intranet and save the data into

interface grid and further save the data to Intranet database. Excel interfaces ease the data entry process and reduces inconsistency in the database. From 2019 to 2022, many new features are added to Intranet like RBD and Split plot analysis, virtual field monitoring, PI dashboards on data receipt and multilocation reports,state/zone/elevation wise consolidated reports along with ranking of varieties, performance of test varieties over check varieties etc. Many hands on training programs are organised during this period to sensitise cooperators on data upload, analysis and report generation(Annexure 1). About 70% of centers are uploading data through AICRIP Intranet. From 2018 onwards Hybrid Rice and Soil Science trial data has been uploaded and analysed through Intranet. This year, Agronomy trial data was also totally analysed using Intranet. Till now, data of three disciplines were analysed using Intranet and further four more disciplines data also will be analysed through AICRIP Intranet.

Copyright

This portal got the registration of copyright (no. SW-12459/2019) during 2019

Google Analytics

There are about 1,82,880 page views of intranet during 2021-2022. As per the google analytics, the users are from India and other countries.
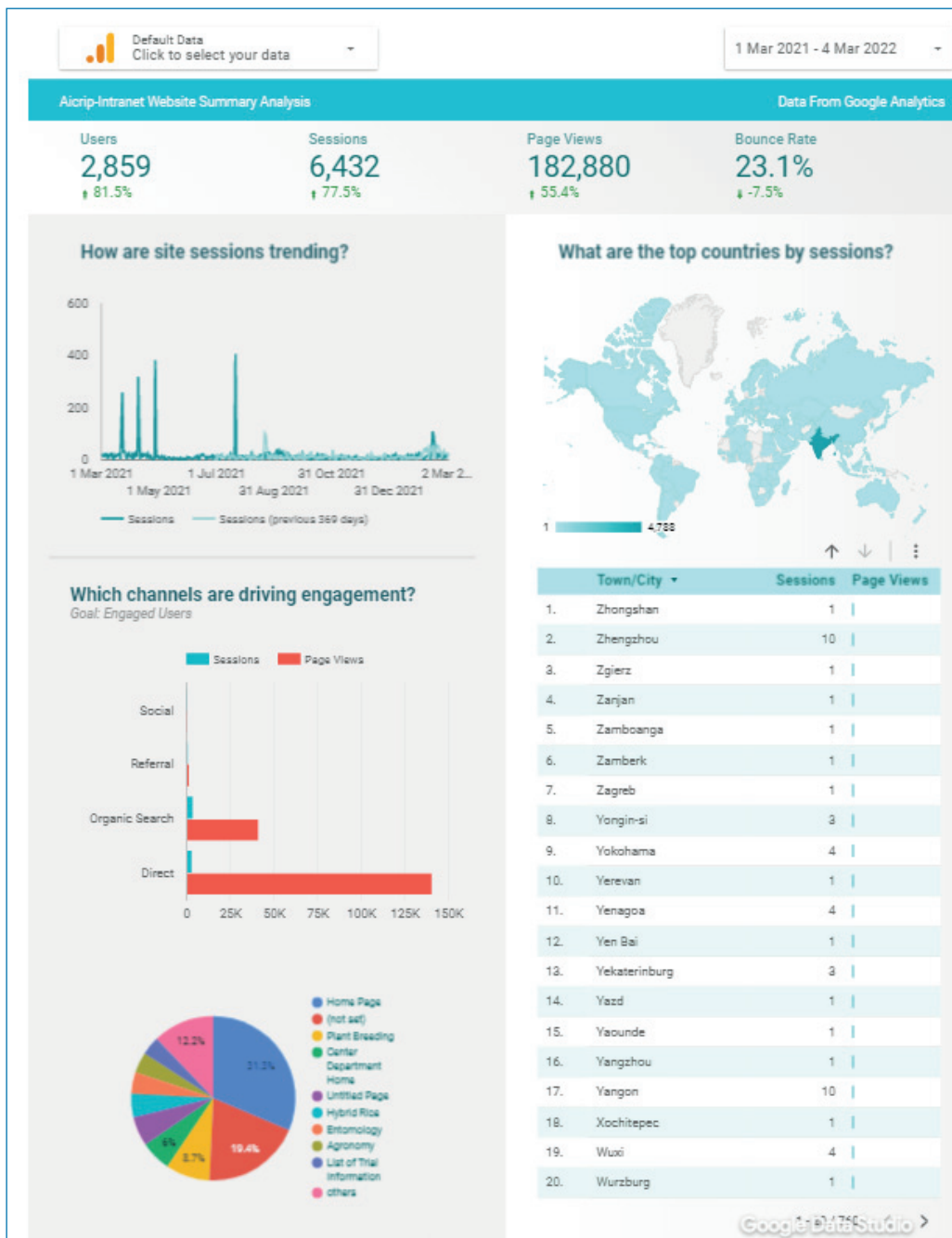
Dashboards

Dashboards were designed for displaying discipline wise status of experimental data upload, seed dispatch and crop condition.

Sensitisation/Training programs organised during 2020-22

- Virtual training on "Sensitisation on AICRIP intranet (www.aicrip-intranet. in) functionalities to activate PI privileges" was organised on December 23, 2020 at IIRR

- Virtual training on "Sensitisation on Plant Breeding - RBD data upload functionalities of AICRIP intranet (www.aicrip-intranet.in) was organised to plant breeding Cooperators on February 12 &15, 2021

- Virtual Sensitisation programs on AICRIP intranet (www.aicrip-intranet. in) functionalities to activate PI privileges were organised at individual departments level i.e. Plant Breeding, Hybrid Rice, Agronomy, Soil Science and Physiology during February 2021

- Virtual Users Training cum Workshop on AICRIP Intranet Functionalities (www.aicrip-intranet.in) was organised by ICAR-IIRR in association with SARR during 15-17 Feb 2022

The training program was targeted to sensitise AICRIP Cooperators on data uploading, analysing and generating the reports through AICRIP Intranet with live demonstrations. A total of 160 participants from various parts of India took part in the training cum workshop among which, 40% are from crop improvement, 33% are from crop production and 27% are from crop protection.

The three days' sessions covered an overview of trials and statistical designs in various AICRIP disciplines, viz., Plant Breeding and Hybrid Rice, Agronomy, Soil Science, Physiology, Entomology and Pathology followed by demonstration and hands on training through AICRIP Intranet Portal.

Day 1-Crop Improvement

Day 2-Crop Production
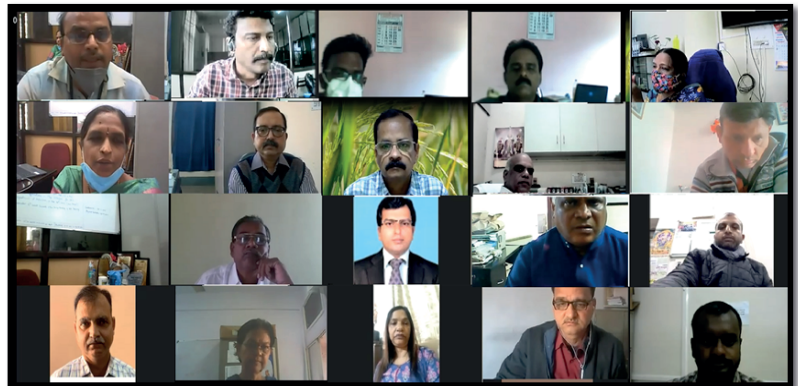
Day 3-Crop Protection

Annexure-II

AICRIP- Intranet User names
Cooperators
Plant Breading

S. No.	Center Name	Code	User Name	S. No.	Center Name	Code	User Name
1	Aduthurai	ADT	pb_adt	33	Danti	DTI	pb_dti
2	Advanta	ADV	pb_adv	34	Derol	DRL	pb_drl
3	Aligarh	AGH	pb_agh	35	Dhaboi	DHB	pb_dhb
4	Allahabad	ALH	pb_alh	36	Dhangain	DNG	pb_dng
5	Almora	ALM	pb_alm	37	Dhumka	DMK	pb_dmk
6	Ambasamudram	AMS	pb_ams	38	Faizabad	FZB	pb_fzb
7	Ambikhapur	AMB	pb_amb	39	Gangavati	GNV	pb_gnv
8	Andaman & Nicobar Islands	ANI	pb_ani	40	Garhkhatanga	GRKT	pb_grkt
9	Ankur	ANK	pb_ank	41	Gerua	GER	pb_ger
10	Annamalainagar	AML	pb_aml	42	Ghaghraghat	GGT	pb_ggt
11	Arundhutinagar	ARD	pb_ard	43	Giridih	GRH	pb_grh
12	Bageswar	BGS	pb_bgs	44	Goa	GOA	pb_goa
13	Bangalore	BGL	pb_bgl	45	Gudalur	GDL	pb_gdl
14	Bankura	BNK	pb_bnk	46	Hathwara	HTW	pb_htw
15	Banswara	BNS	pb_bns	47	Hazaribagh	HZB	pb_hzb
16	Bapatla	BPT	pb_bpt	48	Hyderabad	HYD	pb_hyd
17	Barapani	BRP	pb_brp	49	IARI (New Delhi)	IAR	pb_iar
18	Bayer	BAY	pb_bay	50	IIRR	IIRR	pb_iirr
19	Bhubaneawar	BBN	pb_bbn	51	Imphal	IMP	pb_imp
20	Bikramganj	BKMG	pb_bkmg	52	Jabalpur	JBP	pb_jbp
21	Bilaspur	BLP	pb_blp	53	Jagdalpur	JDP	pb_jdp
22	Bilsapur	BLS	pb_bls	54	Jagtial	JGT	pb_jgt
23	Bilsapur	BIS	pb_bis	55	Jeypore	JYP	pb_jyp
24	Brahmavar	BRM	pb_brm	56	Kalimpong	KLP	pb_klp
25	Canning	CNG	pb_cng	57	Kampasagar	KPS	pb_kps
26	Chakdaha	CKD	pb_ckd	58	Kanpur	KNP	pb_knp
27	Chatha	CHT	pb_cht	59	Karaikal	KRK	pb_krk
28	Chinsurah	CHN	pb_chn	60	Karimganj	KRG	pb_krg
29	Chintapalli	CPL	pb_cpl	61	Karjat	KJT	pb_kjt
30	Chiplima	CHP	pb_chp	62	Karnal	KRL	pb_krl
31	Coimbatore	CBT	pb_cbt	63	Kathalgere	KTG	pb_ktg
32	Cuttak	CTK	pb_ctk	64	Katrain	KTR	pb_ktr

S. No.	Center Name	Code	User Name	S. No.	Center Name	Code	User Name
65	Kaul	KUL	pb_kul	103	Patna	PTN	pb_ptn
66	Khudwani	KHD	pb_khd	104	Patna-ICAR	PTN-ICAR	pb_ptnicar
67	Kolasib	KLS	pb_kls	105	Pattambi	PTB	pb_ptb
68	Kota	KTA	pb_kta	106	Phondaghat	PDG	pb_pdg
69	Kunaram	KRM	pb_krm	107	Ponnampet	PNP	pb_pnp
70	Kurumbapet	KUP	pb_kup	108	Port Blair	POB	pb_pob
71	Lamphalpat	LPP	pb_lpp	109	Puducherry	PUD	pb_pud
72	Lembucherra	LMB	pb_lmb	110	Pundibari	PNB	pb_pnb
73	Lucknow	LUC	pb_luc	111	Pusa	PSA	pb_psa
74	Ludhiana	LDH	pb_ldh	112	Radhanagari	RDN	pb_rdn
75	Machilipatnam	MTM	pb_mtm	113	Ragolu	RGL	pb_rgl
76	Madhurai	MDR	pb_mdr	114	Raipur	RPR	pb_rpr
77	Majhera	MJH	pb_mjh	115	Rajendranagar	RNR	pb_rnr
78	Malagi	MLG	pb_mlg	116	Ramanthapuram	RMP	pb_rmp
79	Malan	MLN	pb_mln	117	Ranchi	RCI	pb_rci
80	Mandya	MND	pb_mnd	118	Rewa	REW	pb_rew
81	Maruteru	MTU	pb_mtu	119	Rudrur	RDR	pb_rdr
82	Masoda	MSD	pb_msd	120	Sabour	SBR	pb_sbr
83	Medchal	MDL	pb_mdl	121	Sakoli	SKL	pb_skl
84	Modipuram	MDP	pb_mdp	122	Samastipur	SMTR	pb_smtr
85	Monocompu	MNC	pb_mnc	123	Shillongani	SHG	pb_shg
86	Mudigere	MDI	pb_mdi	124	Shirgaon	SHR	pb_shr
87	Mugad	MGD	pb_mgd	125	Sindewahi	SND	pb_snd
88	Nagina	NGN	pb_ngn	126	Sirsi	SRS	pb_srs
89	Nagpur	NGP	pb_ngp	127	Sundernagar	SUN	pb_sun
90	Navasari	NVS	pb_nvs	128	Tiera	TIE	pb_tie
91	Nawagam	NWG	pb_nwg	129	Tirur	TRR	pb_trr
92	Nellore	NLR	pb_nlr	130	Titabar	TTB	pb_ttb
93	New Delhi	ND	pb_nd	131	Trichy	TRY	pb_try
94	Nizamabad	NZB	pb_nzb	132	Tuljapur	TLJ	pb_tlj
95	North Lakhimpur	NLP	pb_nlp	133	Umiam	UAM	pb_uam
96	Nuziveedu	NUZ	pb_nuz	134	Uppershillong	USG	pb_usg
97	Palampur	PLM	pb_plm	135	Vadgaonmaval	VAD	pb_vad
98	Palghar	PLG	pb_plg	136	Varanasi	VRN	pb_vrn
99	Pantnagar	PNT	pb_pnt	137	VNR Seeds	VNS	pb_vns
100	Panvel	PNV	pb_pnv	138	Vyra	VYR	pb_vyr
101	Parabhani	PAR	pb_par	139	Vytilla	VTL	pb_vtl
102	Paramakudi	PRK	pb_prk				

S. No.	Center Name	Code	User Name
140	Wangbal	WBL	pb_wbl
141	Warangal	WGL	pb_wgl

S. No.	Center Name	Code	User Name
143	Waraseoni	WRS	pb_wrs

Hybrid Rice

S. No	Center Name	Code	User Name
1	Aduthurai	ADT	hyb_adt
2	Allahabad	ALH	hyb_alh
3	Ankur Seeds Nagpur	ANKN	hyb_ankn
4	Arundhutinagar	ARD	hyb_ard
5	Bayer Bio Science Hyd	BBSH	hyb_bbsh
6	Bhubaneswar	BBN	hyb_bbn
7	Bikramganj	BKMG	hyb_bkmg
8	Brahmavar	BRM	hyb_brm
9	Chinsurah	CHN	hyb_chn
10	Chiplima	CHP	hyb_chp
11	Coimbatore	CBT	hyb_cbt
12	Cuttack	CTK	hyb_ctk
13	Dabhoi	DHB	hyb_dbi
14	IIRR	IIRR	hyb_drr
15	Imphal (CAU)	IMP	hyb_imp
16	Jabalpur	JBP	hyb_jbp
17	Jk Agri Hyd	JKAH	hyb_jkah
18	Karaikal	KRK	hyb_krk
19	Karjat	KJT	hyb_kjt
20	Kathalgere	KTG	hyb_ktg
21	Kaul	KUL	hyb_kul
22	Khudwani	KHD	hyb_khd
23	Ludhiana	LDH	hyb_ldh
24	Malan	MLN	hyb_mln
25	Mandya	MND	hyb_mnd

S. No	Center Name	Code	User Name
26	Maruteru	MTU	hyb_mtu
27	Masodha	MSD	hyb_msd
28	Medchal	MDL	hyb_mdl
29	Mugad	MGD	hyb_mgd
30	Navsari	NVS	hyb_nvs
31	Nawagam	NWG	hyb_nwg
32	Pantnagar	PNT	hyb_pnt
33	Patna	PTN	hyb_ptn
34	PUNE	PNE	hyb_pne
35	Raipur	RPR	hyb_rpr
36	Rajendranagar	RNR	hyb_rnr
37	Ranchi	RCI	hyb_rci
38	Rasi seeds hyd	RSIH	hyb_rsih
39	Rudrur	RDN	hyb_rdn
40	Sakoli	SKL	hyb_skl
41	Shirgaon	SHR	hyb_srn
42	Sindewahi	SND	hyb_snd
43	Sirsi	SRS	hyb_srs
44	Titabar	TTB	hyb_ttb
45	Trimurthi Hyd	TRMH	hyb_trmh
46	Vadgaonmaval	VAD	hyb_vad
47	Varanasi	VRN	hyb_vrn
48	VNR Seeds Raipur	VNSR	hyb_vnsr
49	Wangbal	WBL	hyb_wbl
50	Warangal	WGL	hyb_wgl

Agronomy

S. No	Center NAME	CODE	USER NAME
1	Aduthurai	ADT	agr_adt
2	Almora	ALM	agr_alm
3	Annamalainagar	AML	agr_aml
4	Arundhutinagar	ARD	agr_ard
5	Bankura	BNK	agr_bnk
6	Barpani	BRP	agr_brp
7	Basar	BSR	agr_bsr
8	Bikaramganj	BKMG	agr_bkmg
9	Chakdaha	CKD	agr_ckd
10	Chatha	CHT	agr_cht
11	Chinsurah	CHN	agr_chn
12	Chiplima	CHP	agr_chp
13	Coimbatore	CBT	agr_cbt
14	CRRI	CRR	agr_crri
15	Cuttuck	CTK	agr_ctk
16	Dangain	DNG	agr_dng
17	Faizabad	FZB	agr_fzb
18	Gangavathi	GNV	agr_gnv
19	Geruva	GER	agr_ger
20	Ghaghraghat	GGT	agr_ggt
21	Hatwara	HTW	agr_htw
22	Hazaribagh	HZB	agr_hzb
23	IARI	IAR	agr_iar
24	IIRR	IIRR	agr_iirr
25	Jagdalpur	JDP	agr_jdp
26	Kanpur	KNP	agr_knp
27	Karaikal	KRK	agr_krk
28	Karimganj	KRG	agr_krg
29	Karjat	KJT	agr_kjt
30	Karnal	KRL	agr_krl
31	Kaul	KUL	agr_kul
32	Khudwani	KHD	agr_khd

S. No	Center NAME	CODE	USER NAME
33	Kota	KTA	agr_kta
34	Lucknow	LCK	agr_lck
35	Ludhiana	LDH	agr_ldh
36	Malan	MLN	agr_mln
37	Mandya	MND	agr_mnd
38	Maruteru	MTU	agr_mtu
39	Moncompu	MNC	agr_mnc
40	Nagina	NGN	agr_ngn
41	Navsari	NVS	agr_nvs
42	Nawagam	NWG	agr_nwg
43	Nellore	NLR	agr_nlr
44	New delhi	ND	agr_nd
45	Pantnagar	PNT	agr_pnt
46	Panvel	PNV	agr_pnv
47	Parabhani	PAR	agr_par
48	Patna	PTN	agr_ptn
49	Pattambi	PTB	agr_ptb
50	Puducherry	PUD	agr_pud
51	Pusa	PSA	agr_psa
52	Ragolu	RGL	agr_rgl
53	Raipur	RPR	agr_rpr
54	Rajendranagar	RNR	agr_rnr
55	Ranchi	RCI	agr_rci
56	Rewa	REW	agr_rew
57	Sabour	SBR	agr_sbr
58	Titabar	TTB	agr_ttb
59	Tuljapur	TLJ	agr_tlj
60	Uppershillong	USG	agr_usg
61	Vadgaonmaval	VAD	agr_vad
62	Varanasi	VRN	agr_vrn
63	Wangbal	WBL	agr_wbl
64	Warangal	WGL	agr_wgl

Physiology

S. No.	Center Name	Code	User Name
1	Bankura	BNK	phy_bnk
2	Barapani	BRP	phy_brp
3	Bhubanewar	BBN	phy_bhu
4	Chinsurah	CHN	phy_chn
5	Coimbatore	CBT	phy_cbt
6	Cuttack	CTK	phy_ctk
7	Faizabad	FZB	phy_fzb
8	Hatwara	HTW	phy_hat
9	IIRR	IIRR	phy_iirr
10	Karaikal	KRK	phy_krk
11	Karjat	KJT	phy_kjt

S. No.	Center Name	Code	User Name
12	Maruteru	MTU	phy_mtu
13	Pantnagar	PNT	phy_pnt
14	Patna	PTN	Phy_ptn
15	Pattambi	PTB	phy_ptb
16	Rajendranagar	RNR	phy_rnr
17	Rewa	REW	phy_rew
18	Titabar	TTB	phy_ttb
19	Ummia	UAM	phy_umm
20	Varanasi	VRN	phy_vrn

Soil science

S. No.	Center Name	Code	User Name
1	Aduthuri	ADT	soil_adt
2	Bankura	BNK	soil_bnk
3	Chinsurah	CHN	soil_chn
4	Dumka	DMK	soil_dmk
5	Faizabad	FZB	soil_fzb
6	Ghaghraghat	GGT	soil_ggt
7	Hazirbagh	HZB	soil_hzb
8	IIRR	IIRR	soil_iirr
9	Kanpur	KNP	soil_knp
10	Karaikal	KRK	soil_krk
11	Kaul	KUL	soil_kul

S. No.	Center Name	Code	User Name
12	Khudwani	KHD	soil_khd
13	Ludhiana	LDH	soil_ldh
14	Mandya	MND	soil_mnd
15	Maruteru	MTU	soil_mtu
16	Moncompu	MNC	soil_mnc
17	Puducherry	PUD	soil_pud
18	Raipur	RPR	soil_rpr
19	**Ranchi**	RCI	soil_rci
20	Sirsi	SRS	soil_srs
21	Titabar	TTB	soil_ttb
22	Warangal	WGL	soil_wgl

Pathology

S. No.	Center Name	Code	User Name
1	Aduthurai	ADT	path_adt
2	Almora	ALM	path_alm
3	Arundhutinagar	ARD	path_ard
4	Bankura	BNK	path_bnk
5	Barapani	BRP	path_brp

S. No.	Center Name	Code	User Name
6	Bikaramganj	BKMG	path_bkmg
7	BSR	Basar	path_bsr
8	Chatha	CHT	path_cht
9	Chinsurah	CHN	path_chn
10	Chiplima	CHP	path_chp

S. No.	Center Name	Code	User Name	S. No.	Center Name	Code	User Name
11	Chiplima	CHP	path_chp	39	Moncompu	MNC	path_mnc
12	Chakdaha	CKD	path_ckd	40	Masoda	MSD	path_msd
13	Coimbatore	CBT	path_cbt	41	Mugad	MGD	path_mgd
14	CRRI	CRR	path_crr	42	Navsari	NVS	path_nvs
15	Cuttack	CTK	path_ctk	43	Nawagam	NWG	Path_nwg
16	Dharwad	DHR	path_dhr	44	New Delhi	ND	Path_nd
17	Dhangain	DNG	path_dng	45	Nellore	NLR	path_nlr
18	IIRR	IIRR	path_iirr	46	Patna	PTN	path_ptn
19	Faizabad	FZB	path_fzb	47	Pattambi	PTB	path_ptb
20	Gangavathi	GNV	path_gnv	48	Pantnagar	PNT	Path_pnt
21	Gerua	GER	path_ger	49	Ponnampet	PNP	path_pnp
22	Ghaghraghat	GGT	path_ggt	50	Port Blair	POB	path_pob
23	Gudalur	GDL	path_gdl	51	Puducherry	PUD	Path_pud
24	Hazaribagh	HZB	path_hzb	52	Pusa	PSA	path_psa
25	Hatwara	HTW	path_htw	53	Ragolu	RGL	path_rgl
26	Imphal (CAU)	IMP	path_imp	54	Raipur	RPR	path_rpr
27	Jagdalpur	JDP	path_jdp	55	Rajendranagar	RNR	path_rnr
28	JGT	Jagtial	path_jgt	56	Ranchi	RCI	path_rci
29	Karaikal	KRK	path_krk	57	Rewa	REW	path_rew
30	Karjat	KJT	path_kjt	58	Sabour	SBR	Path_sbr
31	Kaul	KUL	path_kul	59	Tirur	TRR	path_trr
32	Khudwani	KHD	path_khd	60	Titabar	TTB	path_ttb
33	Kurumbapet	KUP	path_kup	61	Umiam	UAM	Path_uam
34	Lenova	LNV	path_lnv	62	Upper shillong	USG	Path_usg
35	Ludhiana	LDH	path_ldh	63	Varanasi	VRN	path_vrn
36	Malan	MLN	path_mln	64	Wangbal	WBL	path_wbl
37	Mandya	MND	path_mnd				
38	Maruteru	MTU	path_mtu				

Entomology

S. No.	Center Name	Code	User Name
1	Aduthurai	ADT	ent_adt
2	Almora	ALM	ent_alm
3	Annamalainagar	AML	ent_aml
4	Arundhutinagar	ARD	ent_ard
5	Bankura	BNK	ent_bnk
9	Bapatla	BPT	ent_bpt
8	Bayer	BAY	ent_bay
6	Bhubaneswar	BBN	ent_bbn
7	Brahmavar	BRM	ent_brm
10	Chatha	CHT	ent_cht
11	Chinsurah	CHN	ent_chn
12	Chiplima	CHP	ent_chp
13	Coimbatore	CBT	ent_cbt
14	Cuttack	CTK	ent_ctk
15	Faizabad	FZB	ent_fzb
16	Gangavathi	GNV	ent_gnv
18	Geruva	GER	ent_ger
17	Ghaghraghat	GGT	ent_ggt
20	IIRR	IIRR	ent_iirr
19	Iroisemba	ISB	ent_isb
21	Jagdalpur	JDP	ent_jdp
22	Jagtial	JGT	ent_jgt
23	Karaikal	KRK	ent_krk
24	Karjat	KJT	ent_kjt
25	Kaul	KUL	ent_kul
26	Khudwani	KHD	ent_khd
27	Kota	KTA	ent_kta
28	Ludhiana	LDH	ent_ldh
34	Madhurai	MDR	ent_mdr
29	Madurai	MDR	ent_mdr
30	Malan	MLN	ent_mln
31	Mandya	MND	ent_mnd
35	Masoda	MSD	ent_msd
32	Matuteru	MTU	ent_mtu
33	Moncompu	MNC	ent_mnc
40	N.Lakhimpur	NLP	ent_nlp
36	Navsari	NVS	ent_nvs
37	Nawagam	NWG	ent_nwg
38	Nellore	NLR	ent_nlr
39	New Delhi	ND	ent_nd
40	Pantnagar	PNT	ent_pnt
41	Patna	PTN	ent_ptn
42	Pattambi	PTB	ent_ptb
43	Puducherry	PUD	ent_pud
44	Pundibari	PNB	ent_pnb
45	Pusa	PSA	ent_psa
46	Ragolu	RGL	ent_rgl
47	Raipur	RPR	ent_rpr
48	Rajendranagar	RNR	ent_rnr
49	Ranchi	RCI	ent_rci
50	Rewa	REW	ent_rew
51	Sakoli	SKL	ent_skl
52	sambalpur	SAM	ent_sam
53	Titabar	TTB	ent_ttb
54	Upper Shillong	USG	ent_usg
55	Wangbal	WBL	ent_wbl
56	Warangal	WGL	ent_wgl

Centre In-charge Users

Funded

S. No.	Centre Name	Code	User Name	S. No.	Centre Name	Code	User Name
1	Aduthurai	ADT	ci_ adt	25	Maruteru	MTU	ci_ mtu
2	Arundatinagar	ARD	ci_ ard	26	Nagina	NGN	ci_ ngn
3	Bankura	BNK	ci_ bnk	27	Navasari	NVS	ci_ nvs
4	Brahmavar	BRM	ci_ brm	28	Nawagam	NWG	ci_ nwg
5	Coimbatore	CBT	ci_ cbt	29	Ponnampet	PNP	ci_ pnp
6	Chinsurah	CHN	ci_ chn	30	Pantnagar	PNT	ci_ pnt
7	Chiplima	CHP	ci_ chp	31	Pusa	PSA	ci_ psa
8	R.S.Pura (Chatha)	CHT	ci_ cht	32	Pattambi	PTB	ci_ ptb
9	Faizabad (Masoda)	FZB	ci_ fzb	33	Patna	PTN	ci_ ptn
10	Ghaghraghat	GGT	ci_ ggt	34	Pondicherry/ kurumbapet	PUD	ci_ pud
11	Gangavati	GNV	ci_ gnv	35	Kanke/Ranchi	RCI	ci_ rci
12	Jagdalpur	JDP	ci_ jdp	36	Rewa	REW	ci_ rew
13	Jeypore	JYP	ci_ jyp	37	Rajendranagar	RNR	ci_ rnr
14	Khudwani	KHD	ci_ khd	38	Raipur	RPR	ci_ rpr
15	Karjat	KJT	ci_ kjt	39	Sambalpur	SAM	ci_ sam
16	Kanpur	KNP	ci_ knp	40	Sabour	SBR	ci_ sbr
17	Karimganj	KRG	ci_ krg	41	Sakoli	SKL	ci_ skl
18	Kota	KTA	ci_ kta	42	Tuljapur	TLJ	ci_ tlj
19	Kaul	KUL	ci_ kul	43	Jorhat/Titabar	TTB	ci_ ttb
20	Ludhiana	LDH	ci_ ldh	44	Upper Shillong	USG	ci_ usg
21	Mugad	MGD	ci_ mgd	45	Varanasi	VRN	ci_ vrn
22	Palampur/Malan	MLN	ci_ mln	46	Imphal (Wangbal)	WBL	ci_ wbl
23	Moncompu	MNC	ci_ mnc	47	Warangal	WGL	ci_wgl
24	Mandya	MND	ci_ mnd	48	Ragolu	RGL	ci_rgl
				49	Nellore	NLR	ci_nlr

ACKNOWLEDGEMENT

Aicrip Experimental Database
(AICRIP-MIS)

Admin Managment
- States
- Departments
- Organizations
- Designations
- Ecosystem
- Centers
- Cooperators
- CMS
- Trial Indents
- Add Trial Indent
- Trial Centers
- Add Seed Dispatch Info
- Allot Design
- Add Trial Varieties
- Calculate NPK Uptake
- Set LowPerformance Centers
- RBD Main
- RBD Analysis
- RBD Report LocationWise
- RBD Report TrialWise
- Split Main
- Split Analysis
- Split Report CenterWise
- Split Report TrialWise
- Screen Main Pest
- Screening Analysis Pest
- Screen Main Disease
- Screening Analysis Disease
- Download Data Excels
- Trial Information
- Allot Indent Trials
- Seed Dispatch Data
- Seed Received Info
- Pest
- Screening
- DamageUnits
- POS
- POS Fertiliser
- Manage Variety
- Manage Drought Water Data
- Manage Fertilizer Data
- Manage Soil Data
- Manage Light Trap Data
- Manage Weather Data
- Crop Condition Report
- Technical Programme
- Trial Sheet Report
- Manage Reports
- Manage Users
- Manage FLDS
- Add POS
- Upload File
- View Virtual Field Monitoring

SEED RECEIVED INFO

Department Name: Plant Breeding

Year: 2021

TRIAL NAME	CENTER TYPE	DEPARTMENT NAME	CENTER CODE	NUMBER OF ENTRIES	QUANTITY	DISPATCH	RECEIVED	REMARKS
AVT 2- E TP_Kharif_2021	funded	Plant Breeding	LDH	13	3	07/06/2021	16/06/2021	
AVT 2- E TP_Kharif_2021	funded	Plant Breeding	JYP	13	3	07/06/2021	24/06/2021	
AVT 2- E TP_Kharif_2021	funded	Plant Breeding	CHN	13	3	07/06/2021	23/06/2021	
AVT 2- E TP_Kharif_2021	funded	Plant Breeding	MSD	13	3	07/06/2021	14/06/2021	
AVT 2- E TP_Kharif_2021	funded	Plant Breeding	RPR	13	3	07/06/2021	14/06/2021	
AVT 2- E TP_Kharif_2021	funded	Plant Breeding	SKL	13	3	07/06/2021	23/06/2021	All 13 entries recieved
AVT 2- E TP_Kharif_2021	Voluntary	Plant Breeding	VVR	13	3	07/06/2021	17/06/2021	
AVT 2- E TP_Kharif_2021	funded	Plant Breeding	MTU	13	3	07/06/2021	15/06/2021	Received in good condition
AVT 2- E TP_Kharif_2021	funded	Plant Breeding	WGL	13	3	07/06/2021	22/06/2021	
AVT 2- E TP_Kharif_2021	funded	Plant Breeding	MNC	13	3	07/06/2021	25/06/2021	
AVT 2- E TP_Kharif_2021	funded	Plant Breeding	PTB	13	3	07/06/2021	02/07/2021	received in good condition
AVT 2- E TP_Kharif_2021	funded	Plant Breeding	MND	13	3	07/06/2021	14/06/2021	received 13 entries with good condition
AVT 2- E TP_Kharif_2021	Voluntary	Plant Breeding	BRM	13	3	07/06/2021	01/07/2021	
AVT 2- E TP_Kharif_2021	funded	Plant Breeding	KUP	13	3	07/06/2021	11/06/2021	
AVT 1- ETP_2021	funded	Plant Breeding	LDH	21	5	15/06/2021	23/06/2021	
AVT 1- ETP_Kharif_2021	funded	Plant Breeding	JYP	21	5	15/06/2021	24/06/2021	
AVT 1- ETP_Kharif_2021	funded	Plant Breeding	CHN	21	5	15/06/2021	24/06/2021	
AVT 1- ETP_Kharif_2021	funded	Plant Breeding	MSD	21	5	15/06/2021	14/06/2021	
AVT 1- ETP_Kharif_2021	funded	Plant Breeding	RPR	21	5	15/06/2021	23/06/2021	
AVT 1- ETP_Kharif_2021	funded	Plant Breeding	SKL	21	5	15/06/2021	23/06/2021	All 21 entries recieved
AVT 1- ETP_Kharif_2021	funded	Plant Breeding	VVR	21	5	15/06/2021	24/06/2021	
AVT 1- ETP_Kharif_2021	funded	Plant Breeding	MTU	21	5	15/06/2021	01/07/2021	Received in good condition
AVT 1- ETP_Kharif_2021	funded	Plant Breeding	WGL	21	5	15/06/2021	23/06/2021	
AVT 1- ETP_Kharif_2021	funded	Plant Breeding	MNC	21	5	15/06/2021	30/06/2021	
AVT 1- ETP_Kharif_2021	funded	Plant Breeding	PTB	21	5	15/06/2021	02/07/2021	-do-
AVT 1- ETP_Kharif_2021	funded	Plant Breeding	MND	21	5	15/06/2021	21/06/2021	Received 21 entries with good condition
AVT 1- ETP_Kharif_2021	Voluntary	Plant Breeding	BRM	21	5	15/06/2021	26/06/2021	
AVT 1- IME_Kharif_2021	funded	Plant Breeding	LDH	41	9	15/06/2021	17/06/2021	
AVT 1- IME_Kharif_2021	funded	Plant Breeding	JYP	41	9	07/06/2021	24/06/2021	
AVT 1- IME_Kharif_2021	funded	Plant Breeding	CHN	41	9	07/06/2021	23/06/2021	
AVT 1- IME_Kharif_2021	funded	Plant Breeding	MSD	41	9	07/06/2021	14/06/2021	
AVT 1- IME_Kharif_2021	funded	Plant Breeding	RPR	41	9	07/06/2021	14/06/2021	
AVT 1- IME_Kharif_2021	funded	Plant Breeding	SKL	41	9	07/06/2021	23/06/2021	Seed of entry No 3504 not recieved
AVT 1- IME_Kharif_2021	Voluntary	Plant Breeding	VVR	41	9	07/06/2021	17/06/2021	
AVT 1- IME_Kharif_2021	funded	Plant Breeding	MTU	41	9	07/06/2021	15/06/2021	Received in good condition
AVT 1- IME_Kharif_2021	funded	Plant Breeding	WGL	41	9	07/06/2021	16/06/2021	
AVT 1- IME_Kharif_2021	funded	Plant Breeding	MNC	41	9	07/06/2021	25/06/2021	
AVT 1- IME_Kharif_2021	funded	Plant Breeding	PTB	41	9	07/06/2021	02/07/2021	-do-
AVT 1- IME_Kharif_2021	funded	Plant Breeding	MND	41	9	07/06/2021	15/06/2021	Received 41 entries with good condition
AVT 1- IME_Kharif_2021	Voluntary	Plant Breeding	BRM	41	9	07/06/2021	26/06/2021	
AVT 1- IME_Kharif_2021	funded	Plant Breeding	KUP	41	9	07/06/2021	11/06/2021	
AVT 1- IM_Kharif_2021	funded	Plant Breeding	LDH	34	8	07/06/2021	16/06/2021	
AVT 1- IM_Kharif_2021	funded	Plant Breeding	JYP	34	8	07/06/2021	24/06/2021	
AVT 1- IM_Kharif_2021	funded	Plant Breeding	CHN	34	8	07/06/2021	23/06/2021	
AVT 1- IM_Kharif_2021	funded	Plant Breeding	MSD	34	8	07/06/2021	17/06/2021	
AVT 1- IM_Kharif_2021	funded	Plant Breeding	RPR	34	8	07/06/2021	14/06/2021	
AVT 1- IM_Kharif_2021	funded	Plant Breeding	SKL	34	8	07/06/2021	14/06/2021	All 34 entries recieved
AVT 1- IM_Kharif_2021	funded	Plant Breeding	NVS	34	8	07/06/2021	14/06/2021	
AVT 1- IM_Kharif_2021	funded	Plant Breeding	MTU	34	8	07/06/2021	15/06/2021	Received in good condition
AVT 1- IM_Kharif_2021	funded	Plant Breeding	WGL	34	8	07/06/2021	14/06/2021	
AVT 1- IM_Kharif_2021	funded	Plant Breeding	PTB	34	8	07/06/2021	02/07/2021	-do-
AVT 1- IM_Kharif_2021	funded	Plant Breeding	MND	34	8	07/06/2021	16/06/2021	Received 34 entries with good condition
AVT 1- IM_Kharif_2021	funded	Plant Breeding	KUP	34	8	07/06/2021	11/06/2021	
AVT 1-L_Kharif_2021	funded	Plant Breeding	JYP	18	5	15/07/2021	24/06/2021	
AVT 1-L_Kharif_2021	funded	Plant Breeding	MSD	18	5	15/07/2021	24/06/2021	
AVT 1-L_Kharif_2021	funded	Plant Breeding	RPR	18	5	15/07/2021	22/06/2021	
AVT 1-L_Kharif_2021	funded	Plant Breeding	SKL	18	5	15/07/2021	21/06/2021	All the 18 entries recieved
AVT 1-L_Kharif_2021	funded	Plant Breeding	MTU	18	5	15/07/2021	20/07/2021	Received in good condition
AVT 1-L_Kharif_2021	funded	Plant Breeding	WGL	18	5	15/07/2021	14/06/2021	
AVT 1-L_Kharif_2021	Voluntary	Plant Breeding	BRM	18	5	15/07/2021	22/07/2021	
AVT 1-L_Kharif_2021	Voluntary	Plant Breeding	SRS	18	5	15/07/2021	21/06/2021	
AVT 1- BIOFORT_Kharif_2021	funded	Plant Breeding	LDH	11	4	15/06/2021	23/06/2021	
AVT 1- BIOFORT_Kharif_2021	funded	Plant Breeding	JYP	11	4	15/06/2021	24/06/2021	
AVT 1- BIOFORT_Kharif_2021	funded	Plant Breeding	MSD	11	4	15/06/2021	21/06/2021	
AVT 1- BIOFORT_Kharif_2021	funded	Plant Breeding	RPR	11	4	15/06/2021	23/06/2021	Received all entries in good condition
AVT 1- BIOFORT_Kharif_2021	funded	Plant Breeding	SKL	11	4	15/06/2021	21/06/2021	All the 11 entries recieved
AVT 1- BIOFORT_Kharif_2021	funded	Plant Breeding	NVS	11	4	15/06/2021	20/06/2021	
AVT 1- BIOFORT_Kharif_2021	funded	Plant Breeding	MTU	11	4	15/06/2021	01/07/2021	Received in good condition
AVT 1- BIOFORT_Kharif_2021	funded	Plant Breeding	WGL	11	4	15/06/2021	24/06/2021	
AVT 1- BIOFORT_Kharif_2021	funded	Plant Breeding	MNC	11	4	15/06/2021	30/06/2021	
AVT 1- BIOFORT_Kharif_2021	funded	Plant Breeding	PTB	11	4	15/06/2021	05/07/2021	-do-
AVT 1- BIOFORT_Kharif_2021	funded	Plant Breeding	MND	11	4	15/06/2021	21/06/2021	Received 11 entries with good condition
AVT 1- BIOFORT_Kharif_2021	Voluntary	Plant Breeding	BRM	11	4	15/06/2021	26/06/2021	
AVT 1- BIOFORT_Kharif_2021	Voluntary	Plant Breeding	SRS	11	4	15/06/2021	21/06/2021	

Aicrip Experimental Database
(AICRIP-MIS)

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- Add Trial Varieties
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- RBD Main
- RBD Analysis
- RBD Report LocationWise
- RBD Report TrialWise
- Split Main
- Split Analysis
- Split Report CenterWise
- Split Report TrialWise
- Screen Main Pest
- Screening Analysis Pest
- Screen Main Disease
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CROP CONDITION

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Department Name: Plant Breeding

Select Year: 2021

TRIAL NAME	CENTER CODE	Entry Number	Date of Sowing	Date of Planting	% germination	Date of PI	Date of Flowering	Date of 50% Flowering	Date of Maturity	Remarks
AVT 2- E TP	LDH	13	16/06/2021	16/07/2021	0					
AVT 2- E TP	JYP	13	03/07/2021	01/08/2021	0					
AVT 2- E TP	MSD	13	15/06/2021	15/07/2021	80					
AVT 2- E TP	RCI	13	25/06/2021	23/07/2021	0					
AVT 2- E TP	RPR	13	19/06/2021	27/07/2021	0					
AVT 2- E TP	SKL	13	24/06/2021	27/07/2021	100					
IVT- BIOFORT	VAD	0	29/06/2021	28/07/2021	90					
AVT 2- E TP	NWG	0	17/06/2021	28/07/2021	88					
AVT 2- E TP	VYR	13	18/06/2021	19/07/2021	0					
AVT 2- E TP	MTU	13	09/07/2021	06/08/2021	0					
AVT 2- E TP	MNC	13	09/07/2021	04/08/2021	0					
AVT 2- E TP	MND	13	28/07/2021	23/08/2021	100					
AVT 2- E TP	KUP	13	15/11/2021	14/12/2021	0					
AVT 1- ETP	LDH	21	23/06/2021	23/07/2021	0					
AVT 1- ETP	JYP	21	03/07/2021	02/08/2021	0					
AVT 1- ETP	MSD	21	25/06/2021	24/07/2021	78					
AVT 1- ETP	RCI	21	24/06/2021	21/07/2021	0					
AVT 1- ETP	RPR	21	24/06/2021	27/07/2021	0					
AVT 1- ETP	SKL	21	24/06/2021	23/07/2021	100					
IVT - ASG	VAD	0	29/06/2021	30/07/2021	92					
AVT 1- ETP	VYR	21	24/06/2021	23/07/2021	0					
AVT 1- ETP	MTU	21	09/07/2021	06/08/2021	0					
AVT 1- ETP	MNC	21	19/07/2021	13/08/2021	0					
AVT 1- ETP	MND	21	28/07/2021	23/08/2021	100					
AVT 1- ETP	KUP	21	26/09/2021	26/10/2021	0					
AVT 1- IME	LDH	41	17/06/2021	17/07/2021	0					
AVT 1- IME	JYP	41	01/07/2021	25/07/2021	0					
AVT 1- IME	MSD	41	16/06/2021	17/07/2021	80					
AVT 1- IME	RCI	41	25/06/2021	30/07/2021	0					
AVT 1- IME	RPR	41	19/06/2021	31/07/2021	0					
AVT 1- IME	SKL	41	24/06/2021	30/07/2021	100					
AVT 1- IME	MNC	41	09/07/2021	04/08/2021	0					
AVT 1- IM	LDH	34	16/06/2021	17/07/2021	0					
AVT 1- IME	VYR	41	18/06/2021	22/07/2021	0					
AVT 1- IME	MTU	41	09/07/2021	05/08/2021	0					
AVT 1- IME	MND	41	09/07/2021	03/07/2021	100					
AVT 1- IME	KUP	41	18/10/2021	03/12/2021	0					
AVT 1- IM	JYP	34	29/06/2021	23/07/2021	0					
AVT 1- IM	MSD	34	19/06/2021	17/07/2021	81					
AVT 1- IM	RPR	34	19/06/2021	23/07/2021	0					
AVT 1- IM	SKL	34	23/06/2021	02/06/2021	100					
AVT 1- BIOFORT	NWG	0	29/06/2021	05/08/2021	82					
AVT 1- IM	NVS	34	16/06/2021	06/07/2021	99					
AVT 1- IM	MTU	34	09/07/2021	03/08/2021	0					
AVT 1- IM	MND	34	28/06/2021	18/07/2021	97 5899963378906					
AVT 1- IM	KUP	34	18/09/2021	22/10/2021	0					
AVT 1-L	JYP	18	03/07/2021	31/07/2021	0					
AVT 1-L	MSD	18	25/06/2021	24/07/2021	72					
AVT 1-L	RCI	18	24/09/2021	21/07/2021	0					
AVT 1-L	RPR	18	24/06/2021	20/07/2021	0					
AVT 1-L	SKL	18	23/06/2021	29/07/2021	100					
AVT 1-L	NVS	0	22/06/2021	13/07/2021	98					
AVT 1-L	MTU	18	09/07/2021	09/08/2021	0					
AVT 1-L	PNP	18	16/07/2021	15/09/2021	85					
IVT- L	SRS	64	17/07/2021	10/08/2021	100					
AVT 1- BIOFORT	LDH	11	23/06/2021	23/07/2021	0					
AVT 1- BIOFORT	JYP	11	02/07/2021	31/07/2021	0					
AVT 1- BIOFORT	MSD	11	23/06/2021	20/07/2021	76					
AVT 1- BIOFORT	RPR	11	24/06/2021	15/07/2021	0					
AVT 1- BIOFORT	WRS	11	25/06/2021	13/07/2021	95					
AVT 1- BIOFORT	SKL	11	23/06/2021	28/07/2021	100					
IVT- ETP	DNG	0	03/07/2021	03/08/2021	85					
AVT 1- BIOFORT	NVS	11	22/06/2021	13/07/2021	97					
AVT 1- BIOFORT	MTU	11	09/07/2021	05/08/2021	0					
AVT 1- BIOFORT	MNC	11	09/07/2021	04/08/2021	0					
AVT 1- BIOFORT	MND	11	09/07/2021	04/08/2021	100					
IVT- M(H)	SRS	36	04/06/2021	22/06/2021	100					
IVT-J	JYP	8	03/07/2021	01/08/2021	0					
AVT 1- L ZONE 7	SRS	0	23/06/2021	16/07/2021	100					
IVT-J	PNP	8	16/07/2021	15/08/2021	85			26/09/2021		
IVT - ASG	SRS	28	30/06/2021	20/07/2021	100					
IVT- BIOFORT	SRS	55	15/07/2021	05/08/2021	100					
IVT-J	SRS	8	22/06/2021	13/07/2021	100					
IVT - IM	RCI	64	20/07/2021	08/08/2021	0					
IVT - IM	RPR	64	16/07/2021	03/08/2021	0					
IVT - IM	WRS	64	20/07/2021	08/08/2021	85					
IVT - IM	SKL	64	15/07/2021	05/08/2021	100					
IVT - IM	NVS	64	17/07/2021	07/08/2021	95					
IVT - IM	MTU	64	16/07/2021	08/08/2021	0					
IVT - IM	MND	64	17/07/2021	12/08/2021	100					
IVT - IM	KUP	64	18/09/2021	08/10/2021	0					
IVT- L	JYP	0	26/07/2021	24/07/2021	0					
IVT- L	MSD	0	10/07/2021	10/08/2021	80					