

Ministry of Agriculture and Farmers' Welfare

Department of Agriculture Research and Education

Demand No. 2

1. Crop Science (CS)

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2021-22			OUTCOMES 2021-22			
	2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22
708.00	1.	Germplasm & breeding lines evaluated	1.1. Total number of germplasm & breeding lines evaluated	37,000	1. Expected improvement in potential crop productivity 2. Enhanced adoption of farming techniques under crop sciences	1.1. % Change in potential yield over the previous year	2.2%
	2.	Germplasm conserved for long-term storage	2.1. Total number of germplasm conserved for long-term storage	5,400		2.1 Farmers/stakeholders adopting the crop Science technologies	11,000
	3.	Conservation of microbial genetic resources	3.1. Total number of microbial genetic resources conserved	275			
	4.	Conservation of insect genetic resources	4.1. Total number of insect genetic resources conserved	125			
	5.	Genotypes identified and registered for unique traits	5.1. Total number of genotypes identified and registered for unique traits	60			
	6.	Genes cloned and characterized	6.1. Total number of genes cloned and characterized	17			
	7.	Entries tested in AICRP multi-location trials	7.1. Total number of entries tested in AICRP multi-location trials	3300			
	8.	Varieties identified by AICRP Varietal	8.1. Total number of varieties identified by AICRP	80			

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2021-22			OUTCOMES 2021-22			
	2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22
		Identification Committees	Varietal Identification Committees for release				
	9.	Marker assisted selection/backcrossed derived lines developed	9.1. Total number of genomics assisted bred varieties/hybrids developed	5			
	10.	Bio fortified varieties/ hybrids developed	10.1. Total number of bio fortified varieties/ hybrids developed	5			
	11.	Varieties/hybrids registered with PPV&FRA	11.1. Total number of varieties/ hybrids registered with PPV&FRA	10			
	12.	Breeder seed produced	12.1. Total quantity of breeder seed produced (q)	72,000			
	13.	New technologies developed and tested	13.1. Total number of new technologies (Protection, production) developed and tested	55			
	14.	Front line demonstration conducted	14.1. Total number of frontline demonstrations conducted	11,000			
	15.	Trainings organized	15.1. Total number of trainings organized for farmers, scientists, technical, supporting staff, extension agencies	275			
	16.	Human resource development	16.1. Total number of Masters and Doctoral Degrees awarded	200			
	17.	No. of publications	17.1. Total number of	300			

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2021-22			OUTCOMES 2021-22			
	2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22
			publications				

2. Agricultural Education (CS)

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2021-22			OUTCOMES 2021-22		
	2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators
613.00	1. Creation of student and faculty amenities in Agricultural Universities	1.1.No. of girls/ boys/ international student hostel, examination hall, educational museum, auditorium	25	1. Attracting talented students towards higher agricultural education	1.1. Percentage change in number of students applying for AIEEA Exam over previous year	10
					1.2. Percentage change in number of students enrolled in AUs over previous year	5
					1.3. Percentage change in number of girls in Higher Agricultural Education	2
	2. Establishment Niche Area of Excellence (NAE) programs for knowledge generation and capacity building (on going & new)	2.1. Number of Niche Area of Excellence (NAE) programs	10	2. Expertise developed in frontier/niche areas of agricultural sciences	2.1. Number of technologies/methodologies/concepts /patents developed	5
					2.2. No. of publications through PG research over previous year	300
	3. Student Rural Entrepreneurship Awareness Development Program (READY)	3.1. Number of EL units set up	15	3. Skill and Entrepreneurship developed among UG students	3.1. Percent change in number of students taking up Entrepreneurship/ employability	2
			3.2. Number of students trained under student			

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2021-22			OUTCOMES 2021-22				
	2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22	
			READY					
	4.	Number of UG/ PG scholarships awarded	4.1. Number of students awarded scholarships	12,000	4.	Financial support for attracting student	4.1. % increase in financial support	5
	5.	Development technology/ processes/Models/Policies/ Other tools etc	5.1. Number of research studies	9	5.	New as well as upgraded/improved digital resources/policies etc for stakeholders	5.1 Number of packages/policies developed and increased over previous year	5
	6.	Capacity building programs	6.1. Number of training programs organized	50	6	Enhancement of competency of Agricultural Research Scientists and faculty members of NARES as well as farmers/farm women	6.1 Number of participants in various capacity building programs organized	1000

3. Agricultural Extension (CS)

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2021-22			OUTCOMES 2021-22		
	2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2021-22			OUTCOMES 2021-22			
	2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22
328.00	1.	Training of farmers and extension personnel for creating awareness on upcoming technologies	1.1. Number of farmers, farm women and extension personnel trained by KVKs (In lakh)	15.31	1. Greater adoption of agro-ecosystem specific relevant technologies for farmer-centric growth	1.1. Adoption rate of new technologies (%)	10
	2.	On-farm testing to identify the location specificity of agricultural technologies	2.1. No. of on-farm trials conducted by KVKs	162500			
	3.	Enhanced production of seeds	3.1. Quantity of seeds produced (Tons)	20500			
	4.	Enhanced production of planting materials	4.1. No. of planting materials produced (In lakh)	232.50			

4. Agricultural Engineering (CS)

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2021-22			OUTCOMES 2021-22		
	2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2021-22			OUTCOMES 2021-22			
	2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22
65.00	1.	Development/ refinement of technologies/ equipment/ machines for farm mechanization, process protocols / products for processing and value addition of agro-produce	1.1 No. of new technology/ machines / process protocols/ value added products	24	1. Enhanced level of farm mechanization and agro-produce processing	1.1. Expected increase in input use efficiency and agro-processing over the previous year (%)	2
	2.	Front line demonstration of the newly developed/ improved prototypes.	3.1 Prototypes for front line demonstrations (nos.)	26			
	4.	Training of the farmers, entrepreneurs for custom hiring, utilization and maintenance of equipment/ machines related to farm mechanization,	4.1. Farmers/entrepreneurs trained; machines/samples tested	420			

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2021-22			OUTCOMES 2021-22			
	2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22
		processing and value addition					

5. Management of Natural Resources (CS)

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2021-22			OUTCOMES 2021-22		
	2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators
250.00	1. Soil inventory and characterization	1.1. Total Number of Block level land resource inventory developed	8	1. Productivity gain due to efficient and cost-effective management of natural resources	1.1. Percentage increase in crop productivity over previous year	2
	2. Testing of soil and water conservation measures for supplementary irrigation	2.1. Total number of soil & water conservation technologies developed	5			
	3. Development of system based farm production technologies	3.1. Total number of system-based farm production technologies developed	13			
	4. Development of organic farming	4.1. Total number of organic farming	4			

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2021-22			OUTCOMES 2021-22			
	2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22
		packages	packages of practices developed				
	5.	Development and demonstrations of climate resilient technologies	5.1.Total number of climate resilient technologies developed and demonstrated	5			
	6.	Development of technologies for managing soil health	6.1.Number of technologies developed on managing soil health	6			
	7.	Design and development of technologies for irrigation water management	7.1.Number of technologies developed for irrigation water management	5			

6. Horticulture Science (CS)

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2021-22			OUTCOMES 2021-22			
	2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Target
212	1.	Collection of germplasm	1.1.Germplasm accessions for breeding of new varieties (nos.)	500	1. Increase in potential production and productivity of	1.1. Percentage increase in potential productivity of component	1

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2021-22			OUTCOMES 2021-22			
	2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Target
					fruits and vegetables	horticultural crops over previous year	
	2.	Identification and release of varieties/hybrids	2.1. Improved varieties identified/released for higher productivity/ resource use efficiency (nos.)	35		1.2. Percentage increase in potential gross production of horticultural crops	1
	2.	Standardization of production/ protection/ post- harvest handling/ processing/ value addition/ biotechnology process/ diagnostic kit or process, technologies	3.1. Technologies standardized for higher productivity (nos.)	80	2. Introduction of new varieties of horticultural crops	2.1. Percentage increase in potential area covered under new varieties of horticultural crops over previous year	1
	4.	Training and capacity building of stakeholders	4.1. No of training and capacity building of stakeholders conducted	175		2.2. Percentage reduction in potential crop losses due to development of trait specific improved varieties and management techniques of horticultural crops over previous year	2
	5.	Field demonstration	5.1. No of field	200			

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2021-22			OUTCOMES 2021-22			
	2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Target
		of technologies	demonstration of technologies conducted				
	6. Production of improved seed/spawn and plants	6.1. Quantity of production of breeder/truthfully labelled seeds of vegetables, spices etc. (Quintal)		250			
		6.2. Quantity of production of breeder seed of tuber crops of potato, tropical tuber crops etc. (MT)		2250			
		6.3. No of rooted cuttings produced (lakh)		5			
		6.4. Plants of perennial horticultural crops (lakh)		12			
		6.5. Quantity of production of Mushroom spawn (quintal)		600			

7. National Agricultural Science Fund (CS)

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2021-22			OUTCOMES 2021-22			
	2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22
48.00	1.	Publications	1.1.No of publications	50	1. Better research facilities to increase high rated publications, patents and technologies	1.1. % of high impact publication from the total no. of publication	100
	2.	Patents	2.1.Number of patents/ copyright filed/granted	3			
	3.	Technologies developed	3.1.No of technologies developed	5			

8. Animal Science (CS)

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2021-22			OUTCOMES 2021-22			
	2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22
302.00	1.	Evaluation, and characterization of genetic resources	1.1 Number of genetic resources characterized	8	1. Overall increase in productivity of livestock and poultry sectors in the project areas	1.1. Percent increase in milk productivity of cattle and buffaloes	1
	2.	Production of quality germplasms (semen doses, piglets and poultry)	2.1.Number of germplasms produced (in lakh)	14.815		1.2. Percent increase in egg production of layers and body weight in broiler	2-3
	3.	Development of genetic markers	3.1.Number of genetic markers, diagnostic	41			

2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22
160.00	1. Explorations/ surveys for fisheries resource assessment	5.1. No. of exploration surveys conducted	150	1. Increase in Inland and Marine fish productions and productivity	1.1. Percentage change in Inland and Marine fish production over previous year (%)	5
	2. Developing of fish breeding and grow out technologies and fisheries and aquaculture products	2.1.No. of technologies	30		5.2. Production from project reservoirs (kg/ha/yr)	220
	3. Technology transfer on fisheries and aquaculture through demonstration and training	3.1.No. of demonstrations of fisheries and aquaculture technologies conducted	50		5.3. Production from project wetlands (kg/ha/yr)	725
		3.2.No. of stakeholders trained	6000	6. Improved aquaculture technology commercialization	6.1. Aquaculture technologies developed and transferred for commercialization	2
				7. Enhanced products marketed based on developed technologies	7.1. No. of products transferred based on technologies	3

10. National Agricultural Higher Education Project (NAHEP) (CS)

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2021-22			OUTCOMES 2021-22		
	2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators
225.00	1. Increase in education facilities, courses and trainings to facilitate knowledge upgradation	1.1. International trainings undertaken for students	220	1. Improvement in student and faculty	1.1. % increased in AU on time graduation rate over previous year	2
		1.2. Industry seminars and professional workshops conducted	313		1.2. % increase in student placement rates over previous year	2
		1.3. New pilot courses added/ upgraded	60			
		1.4. New facilitative units established to enable academic and research infrastructure	92	2. Reduced student and faculty inbreeding	2.1. % AU students admitted from other states	4
		1.5. National and international trainings undertaken for faculty upgradation	102		2.2. % faculties with Higher Education degrees from more than one university and more than one state	4
	2. Promotion of research and technology transfer initiatives	2.1. Number of MoUs signed with industry	127	3. Increased faculty research effectiveness	3.1. % increase in faculty research effectiveness	2
					3.2. Number of students and	18,000

FINANCIAL OUTLAY (Rs in Cr)	OUTPUTS 2021-22			OUTCOMES2021-22			
	2021-22	Output	Indicators	Targets 2021-22	Outcome	Indicators	Targets 2021-22
						faculties directly benefitted	