Annexure IV

1. **Name of the Section : Agril. Extension & Communication**
2. **Priority Research Areas :** Soil degradation & reclamation, Impact of University Technologies, Process optimization of jaggery, organic farming, use of biocontrol measures and bio fertilizers,
3. **Identified Problems :** Soil salinity and land degradation, marketing and promotion of kolhapuri jaggery, climate change & climate resilient farming, government schemes & online applications.
4. **Research Themes Planned : Maha DBT use, applications, constraints associated with MahaDBT**

Annexure-V
Sectional Research (Other than PG)

Name of Section	: Agricultural Extension & Communication
Year	: 2019-20
Title of Research	: A study on perception and adoption of University released varieties for jaggery production technology by the farmers from Kolhapur district
Location	: Kolhapur District
Scientists Involved	: Dr. B. T. Kolgane, I/C Professor Dr. S. S. Khandave, Associate Professor Dr. P.R. Patil, Jr. Res. Assistant Dr. S. S. Patil, Jr. Res. Assistant
Funding Involved	: NA
Findings	:
Recommendations	: By considering the physical characteristics of selected recommended varieties under study, there is need to popularize the variety CoM-09057 among jaggery producers. Therefore, efforts should be made through various extension programmes(group discussion, demonstrations etc.) in collaboration of Maharashtra State Agril. Department & Krishi Vigyan Kendra.
Salient accomplishments	The recommendation was approved in Joint Agresco-2019-20
Impact Statement	
Observations of Peer review committee 2017-18 & ATR	Nill
Name of Section	: Agricultural Extension & Communication
Year	: 2019-20
Title of Research	: Impact of low cost mole drainage technology for reclamation of saline and waterlogged soils in Sangli District
Location	: Sangli District

Scientists Involved	: Dr. B. T. Kolgane, I/C Professor Dr. S. D. Rathod, Asstt. Professor Dr. P.R. Patil, Jr. Res. Assistant Dr. S. S. Khandave, Associate Professor Dr. S. S. Patil, Jr. Res. Assistant
Funding Involved	: NA
Findings	: Low cost mole drain technology is found economically feasible for reclamation of saline waterlogged and ill drained deep black soils on small and marginal farmer's field. High cost of heavy tractors and financial support was limitation in adoption of technology.
Recommendations	: Low cost mole drain technology is found economically feasible for reclamation of saline waterlogged and ill drained deep black soils on small and marginal farmer's field. Hence, efforts should be made to increase awareness among farmers through extension activities to popularize this technology by Department of agriculture, Maharashtra and Krishi Vigyan Kendra in collaboration with Agril. universities. To reinforce the technology dissemination, High power tractor (> 65 HP) with Mole Plough should be provided on custom hire basis by Department of Agriculture, Maharashtra or bank loan facility may be availed on 4% interest rate as of crop loan. Also for effective implementation of this technology sugar factories should make outlet drains in their command area.
Salient accomplishments	The recommendation was approved in Joint Agresco-2019-20
Impact Statement	
Observations of Peer review committee 2017-18 & ATR	Nill

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Name of Section	: Agricultural Extension & Communication
Year	: 2020-21
Title of Research	: Impact of subsurface drainage technology for reclamation of salt affected soils
Location	: Kolhapur District
Scientists Involved	: Dr. B. T. Kolgane, I/C Professor Dr. S. S. Patil, Jr. Res. Assistant Dr. S. D. Rathod, Asstt. Professor Dr. S. S. Khandave, Associate Professor Dr. P.R. Patil, Jr. Res. Assistant
Funding Involved	: NA
Findings	: Subsurface drainage system for reclamation of waterlogged saline sodic medium to deep black soils is technically viable and economically feasible, but adoption of in situ green manuring and use of gypsum was found less, also at post reclamation stage no significant difference was found in yield and B:C ratio of sugarcane at different lateral spacing's (10-15m, 16-20m and 21-30m).
Recommendations	: Subsurface drainage system for reclamation of waterlogged saline sodic medium to deep black soils is technically viable and economically feasible, but adoption of in situ green manuring and use of gypsum was found less, also at post reclamation stage no significant difference was found in yield and B:C ratio of sugarcane at different lateral spacing's (10-15m, 16-20m and 21-30m). Hence it is recommended that, to avoid burden of high initial cost and excess drainage of water with closer lateral spacing's extension agencies (KVK's, SAU's & Agril. Department) should motivate farmers through group discussion and result demonstrationsto adopt 21-30m of lateral spacingand adoption of in situ green manuring and use of gypsum (5MT/ha) for reclamation of water logged salin-sodic medium to deep soils.
Salient accomplishments	The recommendation was approved in Joint Agresco-2020-21
Impact Statement	
Observations of Peer review committee 2017-18 & ATR	Nil

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Name of Section	: Agricultural Extension & Communication
Year	: 2021-22
Title of Research	: Awareness of use of Bio-agents in sugarcane by the farmers from Kolhapur District
Location	: Kolhapur District
Scientists Involved	: Dr. B. T. Kolgane, I/C Professor Dr. H. P. Sonawane, Asso. Professor Dr. S. S. Patil, Jr. Res. Assistant Dr. K. V. Gurav, Associate Professor Shri. B. D. Awale, Agril. Assistant
Funding Involved	: NA
Findings	: It was observed from the study entitled ' Awareness of use of Bio-agents in sugarcane by the farmers from Kolhapur District' that majority of the sugarcane growers had positive attitude towards use of bio-agents. All the respondent farmers had suggested that seeds of green manuring crops should be made available on large scale
Recommendations	: In order to increase the use of bio-agents by the farmers, subsidy as of chemical fertilizers should be given for the bio-agents and sugar factories should provide required bio-agents to the farmers at subsidized rates. Also sugar factories should make available the seeds of green manuring crops through MAHABEEJ by taking village seed production programme at local level.
Salient accomplishments	The recommendation was approved in Joint Agresco-2021-22
Impact Statement	
Observations of Peer review committee 2017-18 & ATR	Nill

Annexure V
Linkage between farmers & Scientists

1. **Name of Section : Agril. Extension & Communication**
2. **Linkage between farmers & Scientists :** All the research projects being conducted are participatory, research findings are based on opinions, suggestions given by farmers.
3. **Research Involved :**
   i. Awareness of use of Bio-agents in sugarcane by the farmers from Kolhapur District
   ii. Impact of subsurface drainage technology for reclamation of salt affected soils.
   iii. Impact of low cost mole drainage technology for reclamation of saline and waterlogged soils in Sangli District.
   iv. A study on perception and adoption of University released varieties for *jaggery* production technology by the farmers from Kolhapur district.
   v. Case studies on Conventional/ Traditional *jaggery* making unit & Mechanized *jaggery* making units.