

Validation of landscape-based site-specific fertilizer recommendations and integrated soil fertility management practices for wheat production

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Validation of landscape-based site-specific fertilizer recommendations for wheat production

- Soil sample collection for characterizing major soil physicochemical properties.
- Management of field trials, organizing field days and harvesting.
- Collecting data that will help develop a fertilizer decision support tool (DST).

Validation of integrated soil fertility management (ISFM) practices on farmers' fields

- Managing field trials, data collection and harvesting.
- Assessing ISFM practices against inorganic fertilizer alone.
- Develop suitable combinations of organic and inorganic fertilizers for wheat production.

Deliverables	Progress	
	Until Nov 2021	Until May 2022
Report on status of field trials and data collection.	<ul style="list-style-type: none"> • Fertilizer and ISFM field trials have been implemented. • Field trials management and data collection are on progress. • Field M and E has been done with partners. • Conducting field days 	<ul style="list-style-type: none"> • The final technical report will be submitted.
Developing fertilizer decision support tool (DST)	<ul style="list-style-type: none"> • Dataset has been organized to develop the DST • The prototype DST is being validated under field condition. 	<ul style="list-style-type: none"> • The DST for site-specific fertilizer recommendations will be developed.
Capacity building	<ul style="list-style-type: none"> • Development agents, experts model farmers were trained about trial implementation, management and data collection. 	<ul style="list-style-type: none"> • Training will be given to researchers and extension staff.
Publications	<ul style="list-style-type: none"> • A research article has been published in Field Crops Research: https://doi.org/10.1016/j.fcr.2021.108175 	<ul style="list-style-type: none"> • Writing research report.

Key lessons

- Partnership: Linkages and collaboration with research and development institutions have been strengthened.
- Appreciating the challenges of working with diverse stakeholders at different levels.
- Understanding the significance of landscape-based approach for soil, nutrient and water management research in undulating areas.



Performance of wheat under different fertilizer treatments and landscape positions (Photo credit: ICRISAT/Getachew Agegnehu)

Core partners



Partnerships

- Regional agricultural research institutes (RARIs).
- Agricultural development offices at different levels.
- Farmers and farmers' organizations.
- CGIAR centres and higher learning institutions.



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