

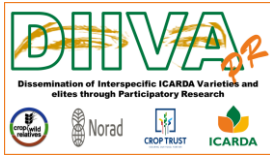
Senegal River - visit Report

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Date of visit: 02-05 th Mars, 2020	location of visit: Senegal
Objective of the visit: Follow DIIVA- PR on-station trials at the heat-prone of Fanaye for durum wheat, barley and lentil.	Methodology: ██████████ companies Fanaye station Farmer field

In the first day, I visited with Hafsa and Dr. Tidiane Sall Amadou ██████████ international company and a Senegalese industrial company called ██████████ at Dakar city. ██████████ and ██████████ are the two largest suppliers investing significantly in wheat milling, with facilities to produce biscuit and baguette flour. Moreover, the company ██████████ has also the capacity to produce pasta and animal feed products. The two industries; particularly ██████████ company; are very attracted to adapt the wheat varieties locally produced in Senegal and minimize a bit the import costs from the European countries mainly France, Italy and Russia. However, the nutritional quality is a primary criterion for the two companies to use the new varieties of wheat. Furthermore, the nutritional aspects of wheat varieties (4 durum wheat and 4 bread wheat varieties) recently released by ISRA in collaboration with ICARDA will be tested for the specific characteristics required by ██████████ and ██████████ companies.

On the second day, we visited DIIVA-PR trials at Fanaye experimental station; an arid continental area limited on the north by the Senegal River. The most CWR-derived lines of durum wheat are showing a high performance and adaptation under the daily temperature of 40°C (figure 1). Likewise, barley



and lentil are presenting a good adaptation to the high temperature of Senegal (figure 2). The best CWR-derived lines of lentil and barley have been selected based on the performance of all plot and the earliness of genotypes. Certain constraints related to agronomic managements have been encountered during the planting of lentil and barley because they have been planted for the time at Fanaye experimental station, the farm managed said. He continued that lentil required a lot of efforts especially weed management, compared to durum wheat and barley, but he was completely convinced of the high nutritional value of lentil and its importance for diversification and intensification of cereal-based cropping systems improving soil fertility.





Figure 1. CWR-derived lines of durum wheat at Fanaye station in Senegal, visited on 3th March 2020.



Figure 2. CWR-derived lines of lentil and barley trials at Fanaye station in Senegal. Visited on the 3th March 2020.



The visit to Fanaye has been continued in the next day meeting [REDACTED] Cisse and some journalists who are following the evolution of wheat in the Senegal river. In the afternoon, we visited the field [REDACTED] living at about 150 Km away from Fanaye station. The farmer [REDACTED] planted for the first time durum wheat and bread wheat together in approximately one hectare, and through the guidance of ISRA researchers he arrived to achieve exceptional results under the extreme conditions of Senegal (**figure 3**). This season, the estimated yield can exceed 3 ton/ha in the farmer field. At the end of the visit, [REDACTED] said that it was a difficult experiment as he planted wheat crops for the first year and he is well aware to share his experiences with other farmers and encourage wheat cultivation in Senegal river basin during the cool season between the middle of November and March when the conditions of rice cultivation is not favorable. Those awareness actions improve understanding of the importance of durum wheat and bread wheat in food security for Senegal and other sub-Saharan Africa where the local production of wheat was tricky under the extreme temperature. The CWR-derived lines of lentil and barley are introduced this season to be evaluated at the heat-prone station of Fanaye station and they could occupy a significant place in the agriculture system of Senegal and sustain farm livelihoods and food security of the country.



Figure 3. ICARDA and ISRA group at the farmer field in Senegal River