

ISRA INTSORMIL Program

Recent progress

Dissemination of best existing varieties or cultivars

- Foundation seeds production of: CE151-262 and F2-20
- Seeds distributed to:
 - ISRA Seed unit
 - NGOs
 - Extension services
 - Training center for producers

Certified Seeds Production

- EWA
 - First level : 1,500 kg.
 - Potentially will benefit more than 10,000 farmers
- CFPF
 - CE151-262 on 1ha in 2008
 - Visited by 44 farmers from 10 organisations
 - 1 tonne distributed to seed producers
- ANCAR
 - 4 ha of F2-20 seeds by farmers participating in PM project.

Development of base populations or cultivars of sorghum

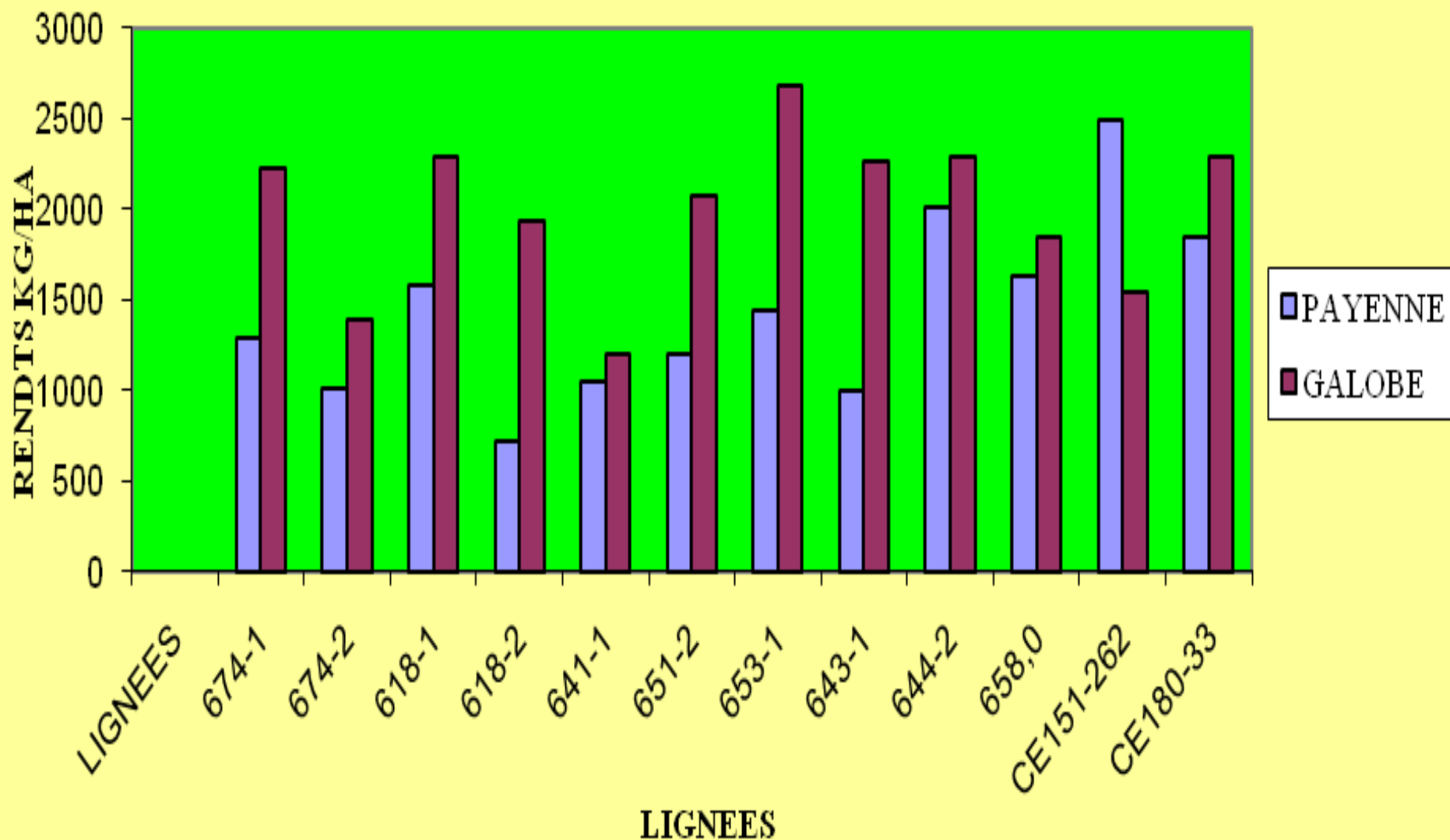
- Improved lines for grain and fodder quality
- High yield potential (3 – 4 t/ha)
- 3 maturity classes:
 - Days to flowering < 65;
 - Days to flowering = 65 – 69;
 - Days to flowering >70

On-Farm Tests

- Trial 1:
 - 10 new entries < 95 days + 2 checks
 - 2 sites
- Trial 2:
 - 9 new lines maturity = 95 – 105 days and 2 checks
 - 3 sites
- Trial 3:
 - 7 new lines maturity > 105 days +2 checks
 - 3 sites

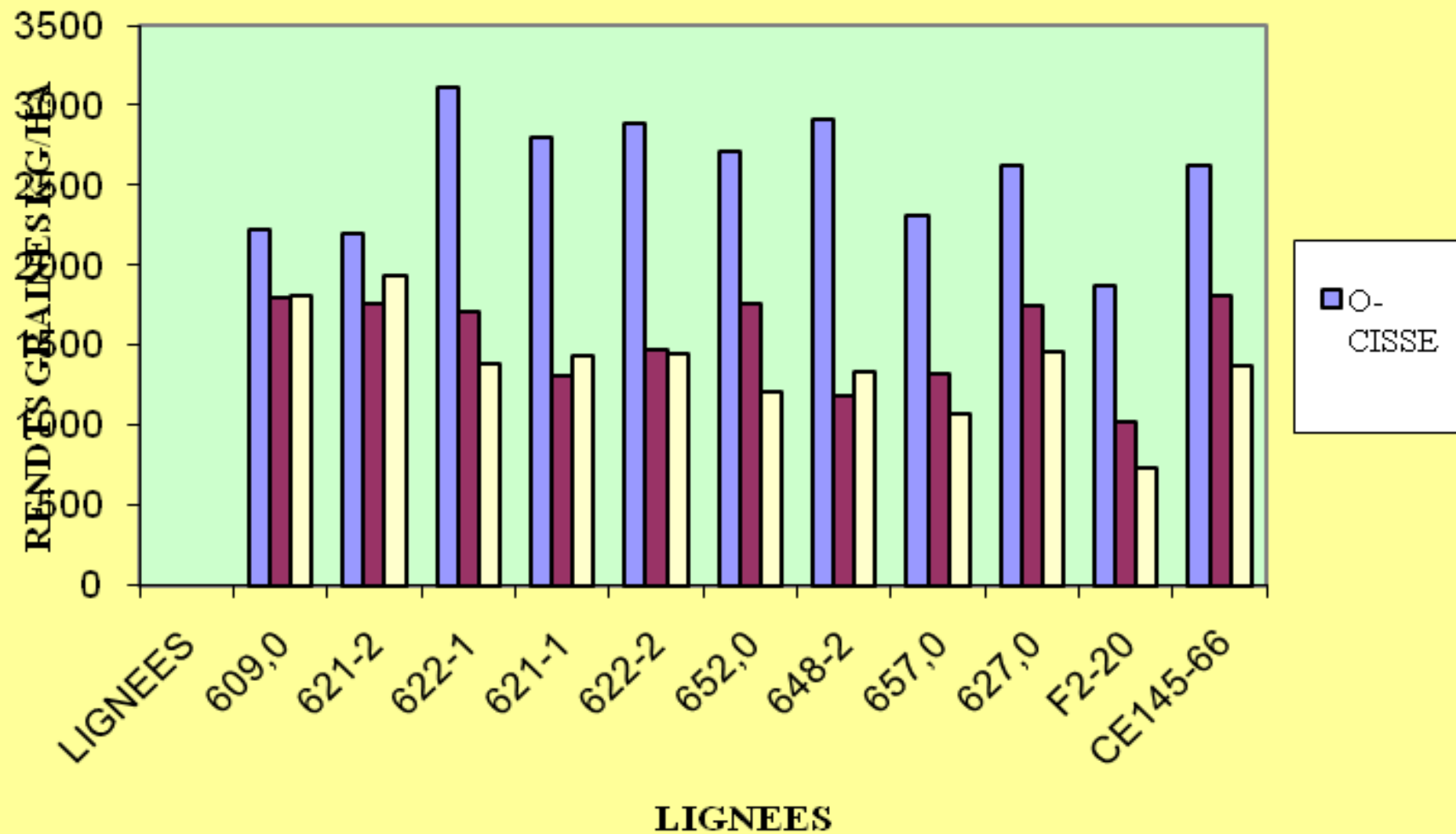
ESSAI MULTILOCAL 1 SORGHO HV 2009

PAYENNE ET GALOBE



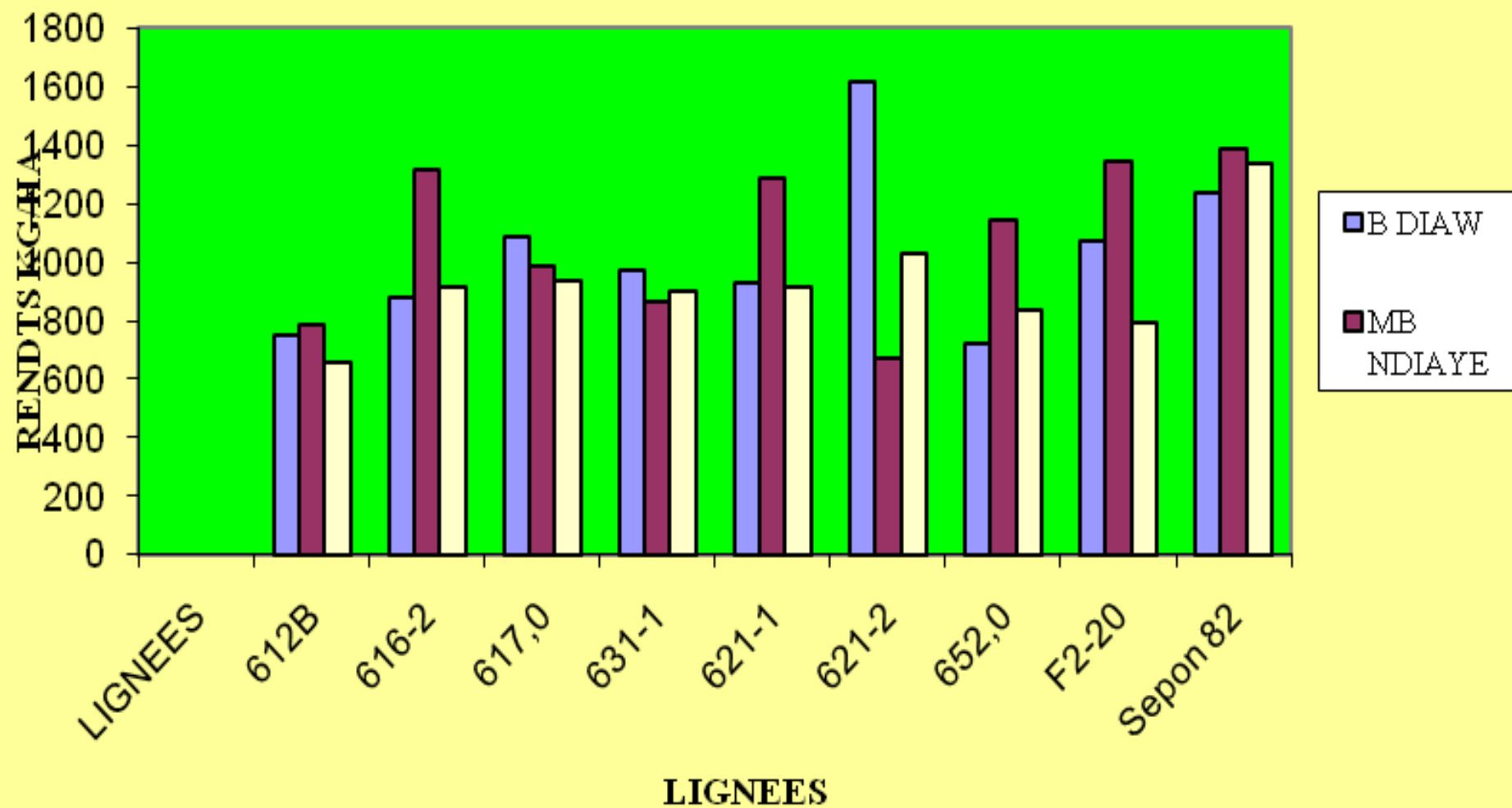
ESSAIS MULTILOCAUX 2

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Integrated *Striga* and nutrient management

Three activities conducted in 2008 and 2009:

- Integrated and sustainable control of *S. hermonthica* through Farmer Field School;
- Field demonstrations of *Striga* control methods;
- Sorghum *Striga* resistant variety trial at selected hot spots in Senegal

Integrated and sustainable control of *S. hermonthica* through Farmer Field Schools

- 2 FFS were implemented in 2 villages:
- Treatments:
 - Integrated management : Millet + 2, 5 tons/ha of sheep or goat organic manure + 150 kg/ha NPK + 100kg/ha of Urea + Mechanical weeding at 15, 35 and 65 das*;
 - Farmer Practice : Millet + Mechanical weeding at 15 and 35 days;
 - Trap host (cowpea IS86-283; Mélakh)

Objectives

- **Farmers to understand:**
 - cereals and trap host cropping and *Striga* management strategies lead to sustainable production;
 - How trap host like cowpea (IS86-283: Melakh) deplete *Striga* seed bank in the soil while producing food and improving soil fertility;
 - Manure from sheep or goat, NPK fertiliser and Urea delay significantly *Striga* emergences, enhance plant growth and increase millet productivity
 - Additional late weeding (65-70 das) reduce significantly *Striga* population and deplete seed bank in the soil.
- Overall farmers to develop technical skills for Integrated *Striga* Management.

Field demonstrations of *Striga* control methods

- At 10 villages and 53 farmers
 - At harvest, mean density of *Striga* plants were 4.1 in ISM and 25.9 for FP / m².
 - In ISM, *Striga* was at vegetative stage, reflecting the effectiveness of late mechanical weeding (65 d)
 - In all sites millet yields were better in ISM plots: 1,7 t/ha in ISM vs 540 kg/ha in FP,
1,6t/ha in ISM vs 5 88 kg/ha in FP .

Sorghum *Striga* resistant variety trial at selected hotspots

- **Lines tested (15):** F2-20, CEF_{322/35-1-2}, SARIASO₁₄, SARIASO₉, ICSV₁₀₄₉, SRN₃₉, Brhan, Mota Galmi, WASSA, SEGUETANA CZ₁, CSM₃₈₈, MALISOR₉₂₋₁, Lina₃, CE₁₄₅₋₆₆ and SL₂₄₆
 - In both field and pot culture, CEF_{322/35-1-2}, Brhan, Lina₃ and SL₂₄₆ were resistant.