CIRAD hybrid rice program: lower breeding costs and sustainability

**Upland rice (Brazil Mato Grosso state)**
- Seed density: 30 Kg/ha.
- One same sowing date for A and R lines.
- Mechanized seedling and harvesting.
- Seed production cost: inferior to 1000 US$/ha.
- Seed yield: between 900 and 1500 Kg/ha (without assisted pollination).

**Population Improvement by Recurrent Selection**
- A better and faster use of the available germplasm.
- A constant accumulation of genetic progress.
- To avoid yield plateau.
- To progressively increase outcrossing ability (to facilitate seed production).
- To be completely independent of conventional inbred program.

**Seeds Production Ability First Selection Criteria**
(Only the hybrids which seeds are easy to produce are evaluated for agronomical value and grain quality)

**Upland Seed Production**
- To facilitate mechanization.
- To lower the seed production costs.

**Using a Single Sowing Date for A and R Lines**
- To lower the seed production costs.
- To lower the breeding costs.
- To evaluate a greater number of new hybrids.
- To get a better efficiency in the agronomical evaluation (more seeds available).
- To facilitate mechanization (seed production and breeding trials).

**El Aceituno, Embrapa, Fronteira, ASPAR and YAAS** are institutions (public and private) associated to CIRAD to develop hybrid rice varieties through these processes.