

**[ DOA ADMINISTRATIVE ORDER NO. 08 Series of  
2012, February 21, 2012 ]**

**REVISED SEED AND FIELD STANDARDS FOR THE PRODUCTION  
OF TWO-LINE HYBRID, THERMOSENSITIVE GENETIC MALE  
STERILE (TGMS) LINE AND POLLEN PARENT**

SUBJECT : REVISED SEED AND FIELD STANDARDS FOR THE PRODUCTION  
OF TWO-LINE HYBRID, THERMOSENSITIVE GENETIC MALE  
STERILE (TGMS) LINE AND POLLEN PARENT

Pursuant to the provisions of the Implementing Rules and Regulations of R.A 7308 otherwise known as the Seed Industry Development Act of 1992, and upon approval of the National Seed Industry Council (NSIC), the following standards for seed certification are hereby adopted as a revision of A.O. No. 4, Series of 2010 to ensure the quality of hybrid (F1) and parental seeds (S or TGMS line and P or Pollen Parent).

1. The general requirements of seed certification applicable to all crops like hybrid rice (F1) and parental lines (S and P lines) as adopted by the National Seed Quality Control Services shall be followed. The succeeding specific requirements shall be complied with:
  - a. The production area must have fertile soil and temperature regimes adapted for parental lines (S and/or P), with sufficient irrigation and efficient drainage system, not shaded and has no previous record of serious incidence of insect pests and diseases.
  - b. The S line must be produced in areas with relatively low temperature that would meet the critical fertility point of the TGMS or S-line. Production of SxP (F1 hybrid) shall be conducted under warm temperature environment meeting the critical sterility point of the TGMS or S line.
  - c. Both SxP production area and control plot must undergo at least four (4) series of field inspections: field establishment (10-20 DAT); tillering (30-50 DAT); flowering stages (55-75 DAT); and one week before harvest, which shall be conducted by NSQCS personnel, deputized seed inspectors and assisted by PhilRice personnel.
  - d. The seed grower/producer should prepare and plant the control plot of at least 40 sq. m. with the S-line at 15x15 cm spacing and at one seedling per hill same day as S in SxP seed production field. The control plot follows isolation required of TGMS lines. The plot should be kept free of off-types, weeds, insect pests and diseases. Cultural management should also be similar to S in SxP field. Roguing of off-types should be completed before flowering (55-75 DAT) of the S-line. No more rouging should be done thereafter. At maturity, the seed inspector shall harvest 1,000 plant samples inside the control plot and filled grains, if any, are submitted to the NSQCS for weighing and analysis. The 1,000 plant samples harvested

occupy 22.5 sq. m. in the control plot. At 3:10 male to female planting ratio, the female parent occupies 7,692 sq. m. in one (1.0) hectare SxP. At four percent (4%) maximum allowable selfed seeds, harvest from the 1,000 plant samples should not exceed 70.0 grams at 14% moisture content (MC). Calculation assumed no failure in isolation, no off-types in the control plots, and 600 kg per hectare seed yield of SxP. In case seed yield per hectare of SxP is greater or lower than 600 kg. per hectare, the corresponding threshold values shall be used as per attached Table 2. If the allowable selfed seeds harvested in the control plot exceeds the standard of four percent (4%), the SxP fields it represent should be rejected and therefore no longer eligible for certification.

If a control plot is planted to represent several SxP fields in the same vicinity, the site chosen should be representative of the environmental conditions existing in the production plots.

- e. Report of inspection must be submitted to the National Seed Quality Control Services that has jurisdiction over the area.
- f. During post harvest processing, proper drying, cleaning, bagging, piling and storing must be observed to maintain the quality of the seeds.

2. The following field requirements and standards must likewise be met:

- a. Production area - at least one hectare irrigated rice area is required for SxP seed production.
- b. Isolation-isolated to avoid unwanted cross pollination and contamination from other varieties to ensure genetic purity of hybrid and parental seeds.

The following isolation methods shall be followed:

- b.1 Distance isolation - an isolation of 100 meters is required. Within this range, no other rice varieties should be grown simultaneously with SxP.
- b.2 Time isolation - adjust planting time to separate flowering of seed parent from other cultivars within 100 meters by at least 3 weeks. The difference in heading between S and varieties grown within 100 meters of the seed production field should be at least 21 days.
- b.3 Geographical isolation - select an area that give natural protection against unwanted cross-pollination. This area is not necessarily forested or mountainous but may be surrounded by other crops such as banana and coconut or an area not planted to any crop.
- b.4 Barrier isolation - crop barrier 2.2 meters high and 4 meters wide may be used as a supplement to other isolation methods. Laminated sacks or plastic 2.5 meters high and