- Base succeeding N applications on the Leaf Color Chart (LCC). The Time and amount of fertilizers to apply when LCC reading is below 4 are as follows:
  [a]Apply only once. Recommended rate of K is 25 kg K_20/ha

Time of Application	Amount of fertilizer per hectare
Early growth stage, from 14-30 DAT	1 bag urea
Rapid growth stage, from 34-50 DAT	1 bag urea + 0.8 bag 0-0-60[a] 3 bags 17-0-17[a]
Late growth stage, around 54 DAT	1 bag urea
10% heading	0.5 bag urea

Irrigation

- Keep the soil damp up until a week after transplanting. During the early vegetation stage, it is fit that the water depth is at 2-3 cm. This will help in the growth of roots. Raise the water level to 5-7 cm during the reproductive stage and keep it at that level until the grains are milky. The rice paddy may be drained 1-2 weeks before harvest.

- Controlling the weeds Proper management of the irrigation is the most effective way of controlling weeds. Exterminate the weeds in the rice paddy on the first 40 days after transplanting. Use bare hands, rotary weeder or any recommended herbicide in controlling the weeds.

Pests Management

- Time your planting with the other farmers in your community. In this way, you will be able to prevent insects and plant diseases from attacking your farm. It is also advised that rice farmers practice the principles of the Integrated Pest Management. This includes combinations of various ways to eliminate or control pests without damaging the possible yield and earnings of the farmer.
- ***Pest that attack the leaves***. Since rice have the ability to replace damaged leaves within the first 40 days after transplanting, it is expected that pesticides will not be needed anymore.
- ***Green Leaf Hoper (GLH)***. Exterminate GLH by using recommended pesticides if there is rice tungro in the neighboring farm. GLH can be a carrier of the rice disease, tungro.
- ***Stem Borer***. Use a systemic pesticide on the base of the rice plant when there are a lot of white heads and dead heart in the plant.
- ***Snail***. This pest can be exterminated by plucking them out with your bare hands or by using molluscide. RATS. Use rat poison if there are already too many of them in your farm. Keep the rat traps up to two weeks before harvest time. Keep the embankments clean so that rats will not inhabit them.
- ***Diseases***. In pest management, avoid excessive usage of nitrogen, a high population of weeds, asynchronous planting and continuous irrigation. You may use recommended pesticides in eliminating diseases in your rice fields.

Harvesting and Postharvest Technology

- Harvest the crop when 80-85% of the grains are clear, firm, and straw-colored.
- However, start harvesting even if the spikelets at the base of the panicle are still a bit green as long as it is already hard.
- Delay in harvesting may lead to grain shattering.
- Too early harvesting produces immature, chalky grains that break easily during milling.
- Thresh immediately to minimize field losses.
- Dry palay to 14% moisture content (mechanical dryer is recommended).

Reference:

Planting Guide for Hybrid Rice lifted from https://www.pioneer.com/CMRoot/International/Philippines/FTT_PlantingGuideforRice.pdf

Hybrid Rice Commercialization Program Handout, ATI-CAR

Department of Agriculture
AGRICULTURAL TRAINING INSTITUTE
Cordillera Administrative Region
BSU Compd., La Trinidad, Benguet
Telefax No.: (074) 422-7460
E-mail: ati_car@yahoo.com

Planting Guide for Hybrid Rice

WHAT IS HYBRID RICE?

- Hybrid rice is the commercial rice crop grown from F_1 seeds of a cross between two genetically dissimilar parents with superior quality.
- Good rice hybrids have the potential of yielding 15-20% more than the best inbred variety grown under similar conditions.

WHY HYBRID RICE?

We Need to go for Hybrid Rice because…

- Yield levels of semi-dwarf varieties of the green revolution era have plateaued.
- More and more rice has to be produced on less land and with less farm inputs.
- Demand for rice is rapidly increasing with the increase in population, especially in less developed countries.
- Hybrid rice varieties have shown 15-20% higher yield potential than inbred rice varieties under farmers' field conditions.
- Hybrid rice had shown their ability to perform better under adverse conditions of drought and salinity.

Land Preparation

Prepare the land two to three weeks before transplanting to ensure the fast and ideal growth of the Pioneer Hybrid Rice to be planted. This will hinder the early growth of weeds and help in proper management of fertilizer and farm irrigation.

- ***Plowing.*** Plow the land once with a medium depth, preferably 10-15 centimeters.
- Harrowing. Harrow the land a week after plowing it and repeat this process after a week has passed.
- ***Leveling.*** Level the land with the use of a plowshare or a hand tractor.
- ***Arranging the embankments***. Clean and fix the embankments to close up any holes that may serve as rats' nest or waterway that will lead to water spillage.

Seed and Seedbed Preparation

1. Prepare a 400 m^2 seedbed
   - 1 m wide of any length
   - 4-5 cm in height
   - apply 10-15 bags organic materials
   - (compost, carbonized rice hull, dried chicken manure, etc.) or 3-4 bags commercial organic fertilizer.

2. Soak seeds for 12-24 hours in clean water or until the seeds have swelled.
   - Do not throw seeds that float.
   - Change water every 6 hours, if not soaked in flowing/ running water.
   - Remove from water, wash the seeds.
   - Incubate for 12-36 hours or until a white dot/protrusion comes out from the seeds.
   - keep seeds warm not hot to facilitate and ensure germination.

3. Sow incubated seeds at a rate of 50 g/m^2.
   If nutrient deficiency is observed: apply ammonium phosphate (16-20-0) or complete (14-14-14) at a arte of 5-10g/m^2 or 2-4kg 10 days after sowing.

4. Maintain 1-2 cm of water in the seedbed.

Transplanting

- Transplant 21-25 day-old seedlings at 1-2 seedlings/hill with a distance of 20 cm x 20 cm for wet season and 20 cm x 15 cm for dry season.

Nutrient Management

- Assess soil fertility (Lab., STK, MOET)
- Use indigenous materials as sources of nutrients (Azolla, rice straw/stubbles, Sesbania, ipil-ipil, animal manure, etc.)

Recommended amount of fertilizers in the absence of soil analysis:

Deficient Nutrient	Fertilizer Requirement	Recommended Basal Application
P	30 kg P_2O_5	Any of the following: • 3 bags 16-20-0 • 2 bags 20-10-0 + 2 bags 0-18-0 • 1 bag urea + 3.3 bags 0-18-0 • 3 bags 17-7-17 + 2 bags 0-18-0
K	30 kg K_20	• 1 bag urea + 1 bag 0-0-60 or 3.5 bags 17-0-17
S	20 kg S	2 bags ammonium sulfate
PK		Any of the following: • 4 bags 10-15-15 • 4 bags 10-15-20 • 4 bags 12-12-12 • 3 bags 14-14-14
PS		• 3 bags 16-20-0
KS		• 2 bags ammonium sulfate + 1 bag 0-0-60
PKS		• 3 bags 16-20-0 + 1 bag • 0-0-60
Zn		• 10-20 kg zinc sulfate (within 10 DAT) or deep seedlings in 2% ZnO suspension

- If MOET is not conducted, apply 4 bags any of the following:
  - 10-15-15
  - 10-15-20
  - 12-12-12 or 3.3 bags 14-14-14 per hectare
- For N, a basal application of 20 kg/ha is recommended during Wet Season.