

# Growing Rice by applying EM cutting edge technology

January 14, 2018

## Spring processing

### I. A month before rice planting

1. EM rectified charcoal            200liters/1,000 m<sup>2</sup>
2. EM Bokashi Type II            150kg/1,000 m<sup>2</sup>
3. Salt                                500kg/1,000 m<sup>2</sup>

\*After spreading the EM rectified charcoal, tilling to a depth of about 10cm. Then apply salt to the surface.

### II. After two weeks of surface spreading of salt

1. Spray the secondary activated EM with seawater    500liters/1,000 m<sup>2</sup>
2. The next day, do soil puddling at a depth of 10cm (as shallow as possible)

### III. After two weeks of first soil puddling

1. Spray the secondary activated EM with seawater    100liters/1,000 m<sup>2</sup>
2. After spraying the secondary activated EM with seawater, do soil puddling at a depth of 10cm (as shallow as possible)

### IV. Plant rice as soon as possible after above treatment III.

### V. During cultivation, apply foliar spraying of 50 liters per 1,000 m<sup>2</sup> of secondary activated EM with seawater once every two weeks.

\* Spray with a 10-fold dilution of Activated EM solution with seawater until the ears of rice bend by about 90 degrees from the heading stage.

## Autumn processing

### I. After a rough tilling after harvest

1. EM Bokashi Type II            150kg/1,000 m<sup>2</sup>
2. Immediately after the application of EM Bokashi Type II, perform tilling operation to a depth of 10cm
3. Apply salt    500kg/1,000 m<sup>2</sup>

### II. More than two weeks after spreading salt

1. Spray the secondary activated EM with seawater    500 liters/1,000 m<sup>2</sup>
2. Till at a depth of 10cm, put the organic matter into the soil and decompose it.

\* If necessary, perform tillage work by spreading salt in the spring treatment so that there is no organic matter on the surface of the soil.

## **Work to be done by spring processing**

### **I. The case of rice cultivation in abandoned cropland**

1. In the case of a rice field covered by weeds
  - a. When a tractor can be available at MC
    - Attach a hammer knife (machine to grind weeds) to the tractor and cut the weeds into pieces.  
(Hammer knife is one of the rental items from the Agricultural Department. Consult the Agricultural Department for installation.)
  - b. When a tractor is not available at MC
    - Cut off weeds with a weeding machine
    - Cut weeds are processed through burning or other methods
2. Field after weed treatment (EM Bokashi Type II and spreading salt)
  - a. As soon as possible, perform EM tillage operation of the rice field by spreading 150kg/1,000 m<sup>2</sup> EM Bokashi Type II
  - b. Conduct this carefully so that organic substances such as rice stalks and weeds will not remain on the surface of the soil. Perform tilling several times before spring processing begins.
  - c. Spread 500kg/1,000 m<sup>2</sup> of salt (Do not perform tilling for two weeks after spreading)
3. Repairing the ridges between rice fields
  - a. Cut off weeds cleanly with a weeding machine, putting soil in places where it is low to adjust the height. If it is impossible to repair the area, place a sheet etc. to prevent water leaking from the ridge. In addition, as a measure against moles, etc., it is recommended to bury activated EM in plastic bottles at intervals of five meters.

### **II. The case of rice cultivation in fields cultivated until last year**

1. Rough tilling, EM Bokashi Type II and spreading of salt
  - a. As soon as possible, perform EM tillage operation of the rice field by spreading 150kg/1,000 m<sup>2</sup> EM Bokashi Type II
  - b. Conduct carefully so that organic substances such as rice stalks and weeds will not remain on the surface of the soil. Perform tilling several times before spring processing begins.
  - c. Spread 500kg/1,000 m<sup>2</sup> of salt (Do not perform tilling for two weeks after spreading)
2. About repairing the ridges between rice fields

Cut off weeds cleanly with a weeding machine, putting soil in places where it is low to adjust the height. If it is impossible to repair the area, place a sheet etc. to prevent water leaking from the ridge. In addition, as a measure against moles, etc., it is recommended to bury activated EM in plastic bottles at intervals of five meters.