

Spark Farm rice cultivation guidelines

September 20, 2018

Autumn processing (Work to be done by the end of the year)

I. Amount of salt, Bokashi, activated EM with seawater

1. Amount of salt

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| a. A rice paddy with many weeds | 300 kg/1,000 m ² |
| b. A rice paddy with fewer weeds | 200 kg/1,000 m ² |

2. Amount of Bokashi Type II

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|---------------------------------------------------------------|-----------------------------|
| a. Yield of 8 rice bags (1 bag=60 kgs.) /1,000 m ² | 150 kg/1,000 m ² |
| b. Yield of 6 rice bags/1,000 m ² | 300 kg/1,000 m ² |

3. Amount of activated EM with seawater

Amount of activated EM with seawater	500 liters/1,000 m ²
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II. Autumn processing procedure

1. Before leveling rice field processing, work from where the soil is high to where it is low
2. Rectify the rice field
3. Spread salt after the process of leveling the rice field
4. Two weeks after the salt application, apply the activated EM with seawater and perform cultivation. At this time, perform tilling at a depth of around 10 cm
5. If you cannot dig and mix rice stalks and cuttings into the soil in a single tilling operation, perform additional tilling operations as needed.

* When spraying activated EM with seawater, if you cannot prepare 500 liters of activated EM with seawater at one time, spray 100 liters first, and the remaining 400 liters can be sprayed four times or several times within the year.

Spring processing (work to do before rice planting)

I. The amount of salt and rectified charcoal necessary for spring processing

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| 1. Amount of salt | 100 -200 kg/1,000 m ² |
| 2. Rectified charcoal | 200 liters/1,000 m ² |
| 3. Activated EM with seawater | 500 liters/1,000 m ² |

II. Spring processing procedure

1. Apply 200liters/1,000 m² of rectified charcoal by January to mid March and perform tilling.
 2. Perform rough puddling of the soil one week before the scheduled soil puddling day.
 3. Perform rough puddling of the soil by calculating back about nine days from the scheduled date of rice planting.
 4. After puddling soil, drain the water and spread 100-200 kg/1,000 m²of salt next day
 5. After applying the salt, put water on the next day
 6. Planting rice will be done about one week after salt application. During this time, spray Activated EM with seawater 500 liters/1,000 m²
- * When spraying activated EM with seawater, if you cannot prepare 500 liters of activated EM with seawater at one time, spray 100 liters first, and the remaining 400 liters can be sprayed by the time of planting rice.

Work to be done by spring processing

I. The case of rice cultivation in abandoned cropland

1. In 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 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
 - Dry the cut weeds and use them as rectified ash
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 150 kg/1,000 m² 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.

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, put a sheet etc. to prevent water leaking from the ridge. In addition, as a measure against moles, etc., it is recommended to bury the activated EM in a plastic bottle at intervals of five meters.

II. In the case of rice cultivation cultivated until last year

1. Rough tilling, EM Bokashi Type II and application of salt

- a. As soon as possible, perform EM tillage operation of the rice field by applying 150 kg/1,000 m² EM Bokashi Type II
- b. Conduct carefully so that organic substances such as rice stalks and weeds will not remain on the surface of soil. Perform tilling several times before spring processing begins.

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, put a sheet etc. to prevent leaking water from the ridge. In addition, as a measure against moles, etc., it is recommended to bury the activated EM in a plastic bottle at intervals of five meters.