

We spread Rice Husk charcoal over the world.

What is the Automatic Rice-husk Carbonizer(ARC)?

Since 1941, we developed many tools for effective usage of rice-husk and completed this ARC in 1967 for the first time in the world. More than 400 units are already introduced in Japan, Cambodia, Myanmar and the Philippines. And cover more than 90% of the market in Japan by incessant efforts of improvement until now.

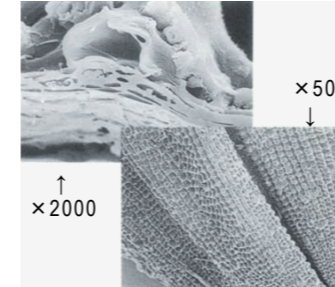


Characteristic and application of Bio-char

4 factors are necessary for a plant to grow. Those are **water**, **air**, the **sun** and **soil**.

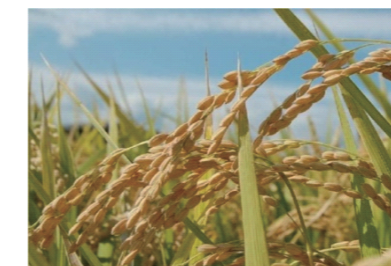
Effect ①

Countless of micro-holes about 20 - 40µm are inherent in the Bio-char. And have effects of permeability (**air**), water conservation (**water**), hygroscopicity (**water**), adsorption (**water**).



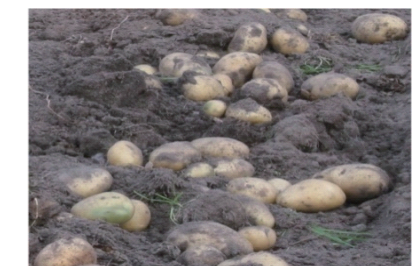
Effect ②

The main component of ARC is silica (SiO₂) and it strengthens roots and stems of siliceous plants like rice (**soil**). And the heat retention effect of the soil when plowed into soil (**sun**). Because it is black color.



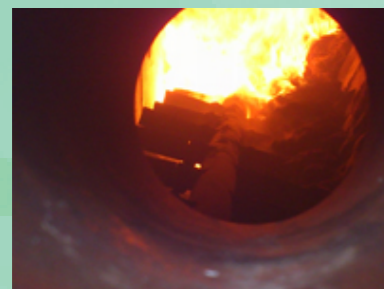
Effect ③

The specific gravity of ARC is so light as 0.1g/cm³. When fertilized with ARC on hard clay soil, the soil changes to soft, and in the case of sandy soil, it turns into harder soil (**soil**).



Four major features of ARC

① Continuous carbonization system



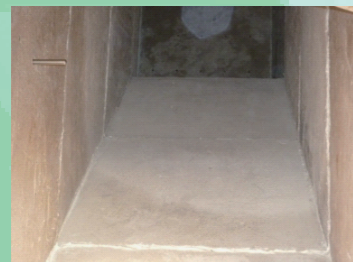
Automatically supplied into the ARC continuously, the rice-husk turns into regular charcoal within 10 min.

② Environmentally friendly



No black smoke, tar and nasty smells are produced at the operation, as the combustion gas is completely burned in the chamber. At starting, 1~4ℓ kerosene is necessary. But no need to use it after that. Because of the self-sustaining combustion of the husk.

③ High durability



The durability of the furnace composed of refractory brick will continue more than 30 years when maintained properly.

④ Easy operation



The charcoals yielded are stocked automatically in the storage tank. And measured and baled after cooling (baler is option).

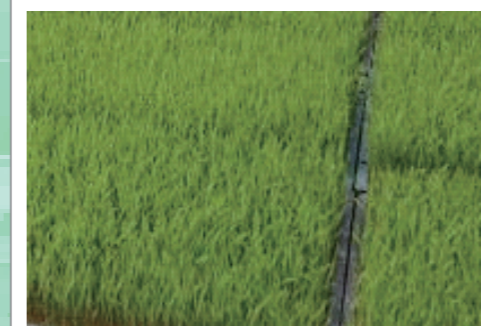
Application for soybean

The soybean, which requires much nitrogen for nitrogen fixation as shown on the following photo, can increase the yield when fertilized with ARC, because much root nodule bacteria (Rhizobium) increase and supply sufficient nitrogen to soybean.



Application for nursery

Mix the Bio-char on marketing nursery soil by 30 - 50 % by volume, roots will extend strongly and save growing cost remarkably.



Application for seedling

Soil preparation for vegetables growing such as tomato, eggplant, cucumber, spinach, watermelon, strawberry, tobacco, and many kinds of flowers, will become easier and bring about revenue increase.

