

Decompressed Distillation, Concentration & Dehydration Unit

Creating Animal Feed, Fertilizers, and Plastic from Waste Moromi Lees

Today, five percent of the Moromi lees generated from distilling Awamori are used to produce Moromi vinegar; 10% to create animal feed and fertilizers; while the remaining 85% is discarded. Since prohibitions against dumping at sea were imposed, disposal costs have been a heavy burden for distilleries. To resolve this problem, Nissin collaborated with distilleries to build provide a Decompressed Distillation, Concentration & Dehydration Unit.

The unit distills Moromi lees at low temperature and pressure (-1 atmospheric pressure) to extract Moromi vinegar. It then dehydrates the lees to concentrate them. Low temperature distillation allows the active elements to be extracted without being broken down. The resulting Moromi vinegar is therefore very aromatic. The unit also sterilizes at low temperature, which slows vinegar decay compared to traditional pressed extraction methods.

Bio-plastic can be produced from the remaining lees. It is possible to make Tokkuri (bottles to serve sake) which even smell like Awamori.

The remaining lees are also appropriate for use as animal feed. The effectiveness has been proved at cooperating livestock farms: farmers are much satisfied that feeding the lees to pigs mean resulted in the pigs eating much and displaying increased appetite.

