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## DISTILLATION

This process separates the alcohol from the cane juice by taking advantage of the volatility of different compounds. Only the most volatile substances will be found in the end product.

The colourless rum obtained after distillation is known as *Grappe Blanche* and has an alcohol strength of approximately 89°.

*The column or continuous still is a key instrument in the distillation process. It comprises a column of perforated trays with a "wine heater" (chauffe-vin). The fermented cane juice arrives at the top of the still and cascades down from tray to tray gradually releasing vaporised alcohol. Steam enters the still at the bottom and takes up vaporised alcohol as it rises. The alcohol, in vaporised form, concentrates at the top of the still and then passes to the condenser where it returns to a liquid form.*

Marrying economics with ecology.

1. The distillation process produces a liquid residue rich in organic matter known as *vinasse*. Research and development into the processing and uses of *vinasse*, initiated five years ago by Damoiseau Rums, has led to the implementation of a system of evaporation/concentration.

This system involves concentrating the *vinasse* using steam produced at the distillery (this steam is generated through combustion of a proportion of the *bagasse*) and then mixing this concentrated *vinasse* with the "excess *bagasse*" not used in the steam production process. The result is a 100% natural fertiliser which can be used on the sugar cane fields.

2. Other systems for making productive use of *vinasse* include:
    - Settling tanks and spreading *vinasse* on sugar cane fields
    - Methanation in order to generate energy; a method reserved for the largest distilleries.
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