

The

## VRS – VALUE RECOVERY SYSTEM



Before



after

From waste  
To valuables

Fertilizer VRS – PRO VERDE®



Ideal for plants and Bio culture

VRS – In harmony with the nature

## **The starting point:**

### ***Organic wet wastes are not throw-away articles!***

This waste contains valuable nutrients such as protein, fats, vitamins, minerals and other elements. To retrieve all these valuable resources, there's a new way which is ecologically better than burning (incineration) or fermentation. This new way, the VRS – Value Recovery System, turns the organic wet waste into valuables.

## **The solution – Recycling valuable material on site**

### ***The VRS – Value Recovery System***

Organic wet waste is valuable material. VRS offers a perfect system which recuperates this resource and turns it into commercial product. VRS has developed, produced, and managed this system with smallest possible energy consumption, respecting the ecology.

### ***The VRS – basic principle***

The innovative *VRS - System* is the only complete solution available in the market for the utilization of the organic wet products directly at customers' site. After this on site treatment, the product goes back to local community in different forms which is: Fertilizer for organic farming and gardens, feed for domestic animals, feed for pigs and other various area which requires good quality nutrition.

### ***The VRS - Machines***

The heart of the VRS systems is the installed machine at the place where the organic wet waste is produced. The process is grinding, water evaporation and sterilization of the organic wet waste. The final product is powder which is sterile, free flowing and durable. The electricity consumption is between kW/h 0,75 - 1,25 per litre of evaporated water, depending on the temperature of ambience. *The condensed steam from the machine is ideal water for flower and plants.*

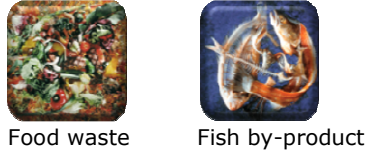


*VRS manufacturing plant in Penthaz/VD*

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## The VRS – Value Recovery System:

### From waste . . .



#### Operation principle:

- Loading with wet waste
- Adding 5 – 10 % wheat bran or saw dust
- Adding 25 – 50 gr neutralizer
- Automatic operation
  - Water evaporation
  - Sterilization
  - Grinding
- Depending on the volume and moisture level of food waste
  - 6 – 11 hour running time per cycle
- Final result:
  - Free-flowing powder
  - H<sub>2</sub>O for flower and plants

. . . to the valuable!

#### The usage:

##### Fertilizer

- Organic farming
- Vegetable patch
- Gardens
- Pot plants

##### Fodder

- Domestic pets



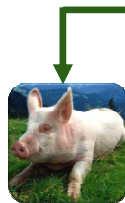
Fodder



Fertilizer



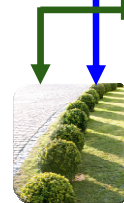
Water or steam



Pigs



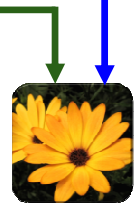
Dogs



Hedges



Vegetable



Flowers

**A PERFECT CYCLE TO PROTECT THE NATURE!**

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## **Advantages of the VRS - System**

### ***1. Recuperation of valuable material***

The valuable material contained in the organic wet waste is not simply burned, but recycled. The dry final product is sterile and has very little odor.

### ***2. The complete cycle***

In most cases, the final product is retrieved, packed and actively used in the local community with local human resource. That means minimizing the cost for transportation and CO<sup>2</sup> emission.

VRS - PRO VERDE® is the trade mark of the fertilizer from the VRS Systems. It is sold in local garden centers and is suitable for hedges, bushes, flower patches and vegetable patches. It's also approved by the Swiss government for BIO - Culture.

### ***3. No contamination risk***

The whole recycling process gets done on site. The final product is sterile. That means customers can avoid the annoying and risky handling of waste containers.

### ***4. Creating jobs for local community***

VRS organizes the transport of the dried final product. This product is transported to institutions for the disabled. There, it is sieved to remove any foreign object such as plastic, mixed for regular consistency and packed into 5 or 10 kg bags. That means more employment opportunity for disabled people in local community.



*Packing in an institution for the disabled*

### ***5. No environmental impact by disposal transportation***

In Switzerland the amount of food waste is about 300'000 tons annually. This corresponds to the transportation of over 2.5 million kilometers, in order to be able to dispose the food waste. This disposal tourism causes CO<sup>2</sup> emission of approximately 10'000 kg.

## **The customers achieve:**

The **VRS – Value Recovery System** embodies the modern disposal of organic wet waste. It offers the following advantages for you:

### **1. No tipping fee.**

Instead of high fee for transport and disposal of organic wet waste, you pay for the VRS machine and the energy cost. Depending on the moisture content of the material and on the local electricity tariff as well as tipping fee, the machine can be depreciated in 3 to 5 years.

### **2. Favorable energy balance.**

Up to 80% of the transportation volume can be saved locally, that means a favorable energy balance can be achieved as a result of on site treatment.

### **3. Improves hygiene.**

Since no transport and container exchange takes place of organic wet waste, no germs or bacteria are carried around. This improves the hygiene crucially, which is very important particularly for hospitals, elderly homes and businesses with large scale catering facility.

### **4. Small space requirement.**

Because the organic wet waste is processed immediately, it does not need a space for freezing storage; Weight and volume of the final product is only 20 - 30% of the original material. For the machines in the following list, only 10 - 20 m<sup>2</sup> of floor space is required.

### **5. Ecological contribution.**

The awareness of environmental protection is highest ever. Raw materials become inevitably scarce, the prices constantly rising.

The perfect cycle of VRS System recuperates this valuable resource from waste and turns it into commercial product with small expenditure. As a result, the VRS system contributes to the society with energy saving and pollution free way of recycling.



VRS – PRO VERDE®

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## Our machines:



VRS - Piccolo



VRS - Génie II



VRS - 100 Swiss



VRS - 150 Swiss



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