

Hit the gas for food waste!



Framtid nu



Sort your food waste – it's perfectly natural!

The thought of householding our resources is quite natural today. And one of the most obvious natural resources we have is food waste. If we sort our food waste, we can process it and produce both fuel and fertiliser. Which is good for the environment! So we are now going one step further towards closing the agricultural cycle and we can end up driving our cars on food waste!

Fertiliser and biogas

Anyone can understand how processed food waste can be converted to an excellent fertiliser. But if food waste is processed in a digestion plant, we can extract even more. The process produces both bio-fertiliser and biogas. Biogas is an alternative fuel that is very popular in the carbon dioxide/environmental debate. By using bio-fertiliser, we can close the agricultural cycle and return nutrients to the earth in a natural way.

What is biogas?

Biogas is made from organic material (food waste, plants, manure, sewage, etc.) that is broken down by micro-organisms in an oxygen-free environment. Biogas technology makes use of the micro-organisms' natural ability to convert organic waste to renewable energy. At the same

time, a highly nutritious end product is produced that can be used as a fertiliser.

Food waste is processed in a biogas reactor that provides the oxygen-free environment. During the putrefaction process, biogas is produced, where the high-energy gas methane is an important part. In order for the putrefaction process to function, the waste must be in liquid form. The waste therefore needs pre-processing before entering the reactor.

Biogas and the environment

Building a biogas plant and collecting sorted food waste provides a long-term and sustainable waste process that closes the agricultural cycle. Biogas is a renewable form of energy that can be used for heating, electricity production or as a vehicle fuel without adding to the greenhouse effect. The interest in using biogas as a vehicle fuel is growing constantly.



What is bio-fertiliser?

After the biogas process is complete, there remains a product that contains all the nutrients that were there from the start. In addition, a large amount of the bound nitrogen is converted to a form that is easier for crops to utilize. This is a considerable advantage since one of the environmental problems that modern agriculture has is the leakage of nitrogen from the ground. The product has a number of different names but the most common are bio-fertiliser, bio-compost or putrefaction sludge.

Sorting properly provides optimum quality

In order for the quality of the product to be good, it must only contain food waste. This is important if it is to be used as fertiliser. You can't spread fertiliser across agricultural land if it contains bottle caps, broken glass and plastic bags. This means that we must do it properly from the start.



Facts: gas-powered vehicles

There are currently around 44,000 gas powered vehicles in Sweden and the number is growing. Most of them are private cars. They are followed by buses and heavy vehicles driven by gas. As an example, Lunds municipality uses gas for the town buses and half of the waste collection vehicles also use it. The percentage of biogas in vehicle gas has now risen to 60%. (2012)

According to a report concerning the potential of biogas in Sweden, the total potential for locally produced biogas is fuel for around 900,000 private cars. This would reduce carbon dioxide emissions by nearly 3 million tons per year. (Biogas made from food waste, fertiliser, sludge, etc.)

Vehicle gas

Vehicle gas is a collective name for biogas and natural gas used as a fuel for vehicles. The gas is mainly methane. The difference between the gases is in how they are produced.

Biogas is renewable and does not add any new carbon dioxide. Natural gas is a fossil fuel that results in a reduced environmental influence of about 25% compared with petrol and diesel.

Is this really a good thing for the environment?

- Yes, it is good for the environment. Since we produce a fuel that does not add more carbon dioxide, we can all add our contribution to the climate goal. The fertiliser that is produced is a high value compost that forms a natural closure to the food cycle. Taking from and returning to the earth is all part of a sustainable society.

- If you don't sort your waste, you probably throw waste food into the household trash. This is then sent for incineration. Where all the nutrients are destroyed for ever and can never be returned to the earth again.

- Households that have already started to sort food waste display another positive side to the situation; they become more aware of how much they buy that is just thrown away. They have started to shop in another way and can even save money. By just buying what you need, you are also fulfilling an important part of the environmental goal.

Did you know that...

- You can travel 96 km on 1,000 banana skins?
- Every petrol or diesel powered vehicle that is replaced by a biogas powered equivalent results in a climatic influence reduction of around 90 percent?
- Food waste from 4,730 people is enough to drive a bus or five waste collection trucks for a whole year?

Sweden's environmental goal - "A well developed environment"

Sweden's Parliament has created a goal for environmental quality within 16 areas. The goal describes the quality and status of Sweden's environment, natural and cultural resources, that are ecologically sustainable in the long term.

Working with an environmental quality goal alludes to e.g. retaining the long term productivity of the ecological system and the ability to household with natural resources.

Partial goal 5

The total amount of waste generated shall not increase and the resource that waste comprises shall be utilized to the highest degree possible at the same time as the influence on, and risks for, health and the environment are to be minimized. Especially concerning:

By the latest year 2010, at least 35 percent of food waste from households, restaurants, large-scale kitchens and shops shall be recycled through biological processing. The goal alludes to source-sorted food waste for both home composting and central processing.

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In a sustainable recycling community, we all help to save resources and close the loop. We use nature's resources in a way that is advantageous for the environment. This means that it feels natural and right to sort our food waste. It also means that we aren't waiting for the future. Our decision to sort our food waste means that the future is now!