Leftovers
– a valuable resource
We are now introducing recycling of household food waste

Umeå recycles food waste
Leftovers, scraps and peel are not worthless waste! They contain nutrients and energy which we can make good use of. We call this food waste recycling - and everything that can be recycled is, of course, good for the environment.

Half of Sweden’s 290 municipalities already offer the possibility of separately sorting food waste. Now Umeå municipality has also decided that it will follow the national aims, which means that by 2010 at least 35 % of all food waste will be recycled through biological treatment. Food waste collected in Umeå municipality is recycled through an anaerobic digestion process in Skellefteå's biogas plant.

 Recycling food waste is easy. Simply put all recyclable food waste in the paper bag – then leave it in the brown waste bin.

**Time scale**

Umeva is introducing recycling of food waste in the municipality in a series of steps. Currently there are no plans for rural areas.

- **2007:** Holmsund, Obbola
- **2008:**
  - Spring: Backen and Umedalen
  - Autumn: Tomtebo, Carlshem, Såvar and Ersmark
- **2009:** Central Umeå
- **2010:** Central Umeå (remaining areas), Teg, Röbäck and Hörnefors

**How does it work?**

As a property owner in the selected areas (see above) you can choose between three different refuse collection options.

1. **Recycling of food waste**
2. **Home composting**
3. **Mixed refuse**

**Using a scraper, let the food waste drain before you place it in the special food waste recycling bag.**

**Don’t fill the bag more than ¾ full so that you can roll down the top properly.**

**Place the food waste bag in the brown refuse bin.**

All households that recycle food waste will receive free bags and a bag holder. It is very important that only the designated bags are used; other types of bags can damage the biogas process.
Why should we recycle food waste?

Food waste makes up a large part of household waste. Recycling food waste via anaerobic digestion allows us to create fuel for transport (biogas) and the remaining waste products can be used as fertilizer. The winners are the environment and future generations who don’t need to take responsibility for our refuse.

The refuse steps
Taking care of refuse always results in some form of environmental impact. To help direct refuse to the most environmentally friendly processing option, Sweden follows the so-called refuse-steps. This shows the best option for processing different types of refuse.

The most environmentally friendly alternative is that through reduced consumption, refuse is not created in the first place.

When refuse is created then it should, where possible, be reused.

Following that, the next most environmentally friendly option is for the refuse to be recycled or turned into energy. The creation of biogas from food waste is one way to recycle both energy and nutrients.

When no other option is possible then the last alternative is landfill. This is the worst option from an environmental perspective. The use of landfill for organic material (e.g. food waste) has been forbidden since 2005.

Fuel from food waste
One tonne of food waste can be used to create biogas for a car equivalent to ca 67 litres petrol or 50 litres of diesel. Within 6 months 712 households in Holmsund collected enough food waste to replace 3500 litres of petrol.

If you assume a car uses 0.75 litres petrol per 10 km then this would be enough fuel to drive 46000 km – more than one lap around the world!
What happens to food waste?

What a lot of gas
The refuse collection vehicle will, during a transition period, do two collection runs; one for the normal household waste and one for food waste. In the future twin container vehicles will be used so that both the green and brown refuse bins can be collected at the same time.

Collected food waste is recycled through an anaerobic digestion process in Skellefteå’s biogas plant, Tuvan. Biogas is used as an environmental fuel in vehicles and the remaining organic material which is left after the biogas process can be used as fertilizer for forests and grassland.

Skellefteå municipality sends their burnable household waste to Umeå by lorry, and on the return journey they take Umeå’s food waste to Skellefteå. In this way we utilise a transport run which would otherwise be empty, this makes both economical and environmental sense.

Greater positive environmental effects will be possible as more people start to sort food waste as we can then further optimize the transport arrangements.

Fees
The household waste fee is designed to encourage recycling and therefore benefit the environment. Owners of multiple household properties and commercial buildings will get individual help in calculating their refuse fee.

Recycling of food waste
When you choose to sort your food waste you pay a yearly fee for the brown refuse bin. The food waste you leave in the bin will be weighed on collection, but no fee per kilo will be charged. Your regular household waste (the green bin) will be less, therefore giving a lower cost based on weight. The bag holder and food waste bags are included in the yearly fee.

Home composting
The cheapest option is home composting, but the cost of a composting container and accessories are not included.

Mixed waste
Mixed waste has a larger environmental impact than the other two alternatives and therefore carries the highest fee.
Three different alternatives

We want you as a property owner to make an active choice. If you don’t inform us of the alternative you would like then you will automatically be assigned option 3: Mixed waste.

1. Recycling of food waste + household waste

You sort recyclable food waste and other household waste into their respective bins. With this option the paper recycling bags and bag holder are included.

2. Compost + household waste

You purchase your own home compost which must be pest-proof, insulated and of adequate size. Other household waste is placed in the green bin.

Note! Food waste must not be composted in a regular garden compost!

3. Mixed waste

If you either cannot or do not want to recycle your food waste then you continue as before and place sorted household waste and food waste in the green bin.
Effective sorting gives lots of biogas and a good quality residue for use as a fertiliser. This is why correct waste sorting is important! If there is too much poorly sorted food waste then it cannot be used for biogas production.

Umeva will undertake random sampling of the food waste collected. This is to guarantee that the sorted food waste maintains a high quality. If repeated errors in sorting are noted then we will contact the property owner for a discussion about possible ways of resolving the problem. If no solution can be reached then Umeva will change the property owner’s contract to a “Mixed waste” collection.

**Right!**
- Food scraps (cooked or raw)
- Bread, biscuits, cakes, buns
- Fruit and vegetables
- Coffee grounds and coffee filters
- Tea leaves and teabags
- Rice, flour, pasta
- Egg and egg shells
- Shells from shellfish
- Smaller bones from meat, fish and poultry
- Popcorn, sweets and chocolate
- Flowers and leaves (but not soil!)

**Wrong!**
- Tobacco – cigarette ends and moist snuff
- Chewing gum
- Soft plastic/plastic film
- Soil, clay, sand and gravel
- Cat sand
- Nappies
- Sanitary towels and tampons
- Fabric
- Vacuum cleaner bags
- Charcoal or ash

**Tips and advice:**
- Use only the paper bags supplied by us.
- Use the bag holder – not watertight containers or buckets.
- Flatten out the bottom of the bag and fold over one edge at the top.
- Wet food waste should be drained first. If necessary mix in some household paper towel, torn up newspaper or egg carton.
- Don’t fill the bag completely – up to the top of the holder is fine.
- Change the bag frequently – at least every third day.
- Fold the bag closed before placing it in the brown bin.
- The bag holder can be washed in a dishwasher.

**Keep on sorting**
It is important to keep on sorting the rest of the household refuse correctly. This is especially true for hazardous waste.

**What is hazardous waste?**
Leftover oil, solvents, batteries, spray cans, fluorescent lights, light bulbs and electrical equipment are all examples of hazardous waste. All of these can be left at the nearest recycling centre.

Opening times for the recycling centres and further information about refuse sorting can be found on Umeva’s home page.