PANEL DISCUSSION: the Development of a Market for Compost

Glòria Colom i Puigbò (Organic Waste Department of Cepa Catalonia)

The development of a market for compost depends on:

1. Its requirements
2. Its quality
3. Its price

Requirements

- They can increase if the use of chemical fertilisers decreases. In this sense, it's necessary to make a promotion effort and to have a distribution method.
- If a region has a surplus of organic materials, those must be relocated to other deficient places. Just remember that: Sicily loosed its fertility into Roman sewers, as happened with North Africa nutrients during first century a.D. This contributed to an environmental and economic failure of this region on the half III century a.D. (Justus von Liebig)

Who makes the marketing of compost:
- Marketing based on own workers.
- Engage brokers.
- Take a private contractor to market in bagged form to chains of stores.

Promotion policies:

- In many countries there is a bad experience (compost with impurities, weeds, diseases, pesticides, unsteadiness of compost...) due to compost coming from unsorted municipal solid wastes (MSW). It's hard to get a first-time customer but it's three times harder to get them back. It's necessary to give credibility.
- To give specialized advice (dose of application, application method, moment of application). Researches in this subject are very interesting.
- Supply transport and field application.
- Be aware about customer interests. For ex: landscapers preferences in EEUU have changed to a larger compost particle size to help aerate soils.
- It's important to have a steady supply of uniform product.
- Give compost to show it's a good product for free.
- Choose some types of customers (for ex. Landscape contractors, garden centers and homeowners) as the primary markets, and get other types since them.
- It's very useful to make information pass by word of mouth.
- Offer a bagged product to reach a broader audience. In this specific composting business, competition becomes harder. Bagging compost also allows you to advertise your product when you are selling it.
- To diversify the offer by adding other products like topsoil, wood chips, and several types of mulches.
- No overstimulate the market because it can run out of product and the valued customers would start buying compost from other sources.
- The location of composting facilities is also important. For ex. Near a hot market for lawn and garden sales, close enough to a metropolitan area.

Quality

- It's the most important aspect.
- It's the easiest aspect to touch upon it.

Legislative measures that would help the compost market:

It should be a maximum of impurities allowed for the incoming food residuals. This implies:

- The source separation of the organic fraction of MSW must be mandatory.
- An increase of environmental education.
- The use of composting bags (Image 1).
- Choose a good collection model for source separation schemes.

It should be a minimum quality of the final product.
Possibility to introduce organic pollutants analyses.

Eco-labels and quality assurance schemes:

- They can be the solution to change the negative image and to give credibility.
- It's necessary to do enough analytic control.

Improve the management of the facilities:

- Control the managers of the collection and transport as well as the managers of the composting facilities.
- Assure a convenient period for the composting process.
- Handle contamination of the material as soon as possible (preventive management instead of finalist management of the composting facilities). The compost of Image 2 has past by a complicated post-treatment, and has still some little impurities. The compost of Image 3 has past by just a trommel, and has no impurities. Real solution for impurities is based on a clean separate collection fraction and pretreatment.

Gravity separators are not the solution for all the impurities.

Price

- In Catalonia, the price of compost ranges between 9.01 and 54.09 €/tm.
- It is possible to touch upon this aspect by, for example, aiding agricultural use of compost

Silvia Calamandrei

(Head of Division of the Section of "Agriculture, rural development and environment protection of the Economic and Social Committee of the European Union)

.First of all my compliments to the organisers of this highly qualified conference, paying attention to waste management aspects that have been left aside in the building up of the European waste strategy, that had to focus first on priority subjects concentrated in the industrial sector. This strategy, based on prevention, recycling and recovery of waste, has achieved great results, and thanks to its success we are now able to conceive new targets and to involve new stakeholders: not only industry and consumers, but also the farmers, who are paying greater attention to sustainable agriculture and agro-environmental measures and are potential users of new recycled and recovered materials.

Staffan Nilsson, a representative of Swedish farmers, has already illustrated the reasons and the contents of the ECOSOC Opinion on sewage sludge and has underlined the interest of farmers in an improved dialogue with society on preservation of soil and natural resources, preventing harm to the environment and promoting sustainable rural development.

Organic waste produced by society and properly collected and separated can be used by farmers as a nutrient; but as users and producers of consumer goods the farmers want to be guaranteed that hazardous substances (especially heavy metals) are properly removed, avoiding damage to water and soil and preventing an impact on food products. So the farmers are involved as stakeholders in the use of recycled materials resulting from the collection of waste: to develop this new market their point of view has to be taken into account.

For this reason the ECOSOC is pushing for the revision of the sewage sludge directive and is looking forward to other measures in the same direction; this is part of the effort to integrate the environmental dimension and a high level of consumer protection into all policies, as well as an important issue in the food safety policy. At the Economic and Social Committee we are dealing with agricultural questions, food safety and environment within a single consultative structure, the Section for Agriculture, Rural development and the Environment; this is an interesting experiment in dialogue and consensus building between different stakeholders, allowing a better mutual understanding and opening up agriculture to the new demands of society.

We are looking forward to the results of the present debate and to the future initiatives of the Commission and we are prepared to give our contribution in connection also with the discussion of the new Environmental Programme and the debate on the future of Agriculture Common Policy.

Agostino Braga
(Council of European Municipalities and Regions)

Separate collection of organic waste is a necessary step in order to reach significant values of separate collection and to meet the EU targets.
Especially in southern European countries, there is extensive need of compost but, possibly because of the poor quality of this product in the past years, the demand is limited and there are few composting plants.
In Greece, for example, about 50% of the municipal solid waste is composed of organic material and 8,3% of the GNP arises from agricultural activities: this is 2-3 times as high as in the other southern European countries. Furthermore, compost could reduce the waste problem also with regard to the Greek islands, providing an economical solution that could be useful to enrich the soil with humus. But, for the moment, not one composting plant is operating (like in southern Italy).

More generally, separate collection has had difficulties in getting under way in southern Europe, both because it requires several types of competence, that the local authorities often do not possess, in order to be successful, and because of the lack of a productive system which provides for the treatment and recovery of whatever could be separately collected. Furthermore the transport costs to distant treatment plants are often prohibitive.
There are simply not enough paper factories, glass works, steel plants and compost plants able to usefully use recovered paper, glass, iron and organic waste.

So we have to face two problems: the first concerning the organization of separate collection, which is the task of the local authorities, and the second concerning facilities, that is the lack of plants for recovering the waste separately collected.
The solutions that I foresee require a precise commitment of the European Union and of the central governments in order to train and to educate the local authorities and the citizens.
In particular, in the case of compost, the educational aspects also concern the users: if the students of the agricultural schools begin to use compost during their studies, they will better appreciate its utility, also in their future professional lives.
In my city (Brescia) an agreement has been in effect for several years, which establishes that the local utility supplies compost free of charge to an agricultural school and co-operates with it on research for optimum utilization.

The other fundamental aspect is quality, that has been extensively discussed during this conference. The industrial sector, which is the recipient of paper, glass, metals selected from waste, is very well organized from the quality point of view and is more easily controllable. The agricultural sector, on the other hand, is not sufficiently committed to quality.
Low quality composts have a negative effect not only on agricultural products, but also on the soil and on water bearing strata.
The concept of quality, for compost, has to be applied starting from the conferment of the biowaste through appropriate information to the citizens, in order to ensure an adequate level of purity.
There is also the collection stage, which has to be optimized in order to keep costs within bounds and increase the percentage of the humid organic waste collected.
At this stage, and in the final treatment stage, recourse to certification such as ISO, EMAS and ECOLABEL for the compost is desirable.

The European Union is preparing a Directive for biological treatment of biodegradable waste,

which is awaited with great interest and expected to provide everyone with a common framework.
Indeed, it is essential to ensure that, in view of application of the Ladder Principle and thus of the residual use of landfills, compost does not become a disguised disposal, causing long-term damage to the soil and polluting the water bearing strata.
This is an aspect that worries the local authorities very much, as they are the first defenders of their territory. And they are right to worry, because the work document ENV.E.3 for biological treatment of biodegradable waste (20.10.2000 version) establishes five environmental quality classes for compost and stabilised biowaste, with values that are not acceptable for the lower classes.

I conclude with a recommendation, which may sound banal, but that could lead us to significant results in waste reduction: we have to promote home composting wherever possible. A composter costing 30-60 euro will eliminate conferment, collection, transport and treatment stages.
In spite of this, there has been little interest in developing this option, also because in the official separated collection percentages of several member countries (including Italy) the data relative to domestic compost are not included (although assessable and controllable by sample) and thus do not contribute to achieving the separate collection targets.
That is undoubtedly why this useful solution appears less interesting to the local authorities.
That is not the case, for example, in Switzerland, where 2/3 of the biowaste is treated in domestic composters.