

## The distribution of fertilisers for agricultural use 2009

Istat has made available the main results of its survey, with reference to 2009, of the distribution of fertilisers for agricultural use.

The survey in question is a census survey and regards all enterprises which distribute such products in Italy under their own or foreign brands. For each type of fertiliser the survey records both the quantity of nutrient elements as set out in by current legislation, and the entire nutrient contents declared by the company which distributes it. Fertilisers distributed for non-agricultural use, i.e. those intended for home or hobby use or for the manufacture of other industrial products (paints, explosives, etc.), are excluded from the survey.

In general, the distribution of fertilisers depends mainly on the type of agriculture practiced, on crop rotation, on the individual species and varieties grown, on the physical-chemical properties of the soil, and on market trends, as well as on the choices made by the farmer in setting out the business fertilisation plan.

## Main results

In 2009 the quantity of fertilisers distributed for agricultural use fell by 4.7 million quintals (-9.6%) compared with the previous year (Table 1). Specifically, the quantity of mineral fertilisers decreased by 8.3 million quintals (-23.8%), whereas the quantity of soil amendments increased (3.5 million quintals, +28.5%). Soil correctives on the other hand fell by 0.3%.

The distribution of fertilisers allowed in organic farming rose from 11.1 to 11.6 million quintals (+4.4% compared with 2008). The largest increase concerned soil amendments (1.5 million quintals, +24.9%), while soil correctives grew by 11.9%. These results show how EU programmes sustaining eco-compatible and organic farming are developing rapidly. Indeed, since they have a reduced content of nutrient elements, they can be used in large doses and thus increase and maintain the organic fertility of the land while respecting the environment.

The nutrient elements contained in fertilisers increased by 3.4% (from 23.4 to 24.2 million quintals); as a result, the concentration increased from 47.7% to 54.5% (Table 2). Specifically, mineral fertilisers decreased by 12.7%, while soil amendments and correctives increased by 31.1% and 10.8% respectively.

A geographical analysis shows that 64.4% of fertiliser distribution is concentrated in the North, 15.0% in the Centre and the remaining 20.6% in the South (Table 3). In the North, Lombardia and Veneto take up, respectively, 16.3% and 15.9% of national distribution.

In the Centre and the South, of particular note are Toscana and Puglia, where 5.4% and 7.4%, respectively, of the total quantity are distributed.

## Trends in the distribution of fertilisers during the 2000-2009 period

In the 2000-2009 period, the quantity of fertilisers distributed fell by 4% overall (from 46.2 to 44.4 million quintals), within the context of a reduction of total agricultural land used (Table 4 and Figure 1). At the same time, mineral fertilisers decreased by 35.9% (from 41.2 to 26.4 million quintals), while soil amendments, which in 2009 reached the highest absolute value for the period, increased by 228.1% compared with 2000 (from 4.9 to 15.9 million quintals). Finally, soil correctives rose from 0.2 to 1.9 million quintals.

Specifically, between 2000 and 2009 the distribution of mineral fertilisers showed a decrease both in simple mineral formulations (-38%) and in compound products (-40.8%). In contrast, a slight increase was recorded for organic formulations (+10.9%) and a reduction for organo-mineral products (-40%). Among soil amendments, the largest increases regarded plant-derived and peat-based formulations (+3.6 and +1.8 million quintals respectively). It should be noted, in addition, that the decrease in mineral products was counterbalanced by a significant increase in organic formulations (fertilisers and soil amendments).

In general, trends in fertiliser distribution are in line with the European Union's agricultural policy directives, which are geared towards developing the use of organic amendments and fertilisers in place of synthesised mineral products in order to improve productive quality, safeguard health and respect the environment.

## Information note

The survey in question is a census survey and is conducted upon all enterprises which market, either under their own brand or foreign brands, fertilisers (fertilisers, soil amendments and soil additives) consisting of natural or synthetic, mineral or organic substances, which are designed to provide crops with one or more chemical elements of fertility or capable of modifying and improving the chemical, physical and biological properties and characteristics of farmland.

The definitions given of the fertilisers which constitute the field of observation of the survey correspond to those contained in Law no. 748/84 and subsequent amendments, including Legislative Decree no. 217 of 29<sup>th</sup> April 2006.

The survey is conducted annually and the information is collected from questionnaires completed by enterprises, who send them to Istat by post or electronically. Enterprises are asked to indicate the quantity, expressed in quintals, for both domestic and imported production, of fertilisers for agricultural use distributed annually in individual provinces.

In order to prevent duplication of the data, exported fertilisers and those for non-agricultural uses are not recorded. The amounts sold to other enterprises, which in turn sell them under their own brand (sometimes following additional processing, mixing or packaging operations, for example) are recorded only by the purchasing enterprises. Amounts produced by consortia, cooperatives, associations, agricultural enterprises or other organisations that distribute them to their own members, co-holders, sharecroppers, employees, and so on, are also included. It is only necessary in the case of imported fertilisers to declare the amounts sold under a brand different from that of the distributing company. Specifically, the amounts of fertilisers sold in bulk or loose are not recorded, except in cases where they are sent on as they are to distribution.

The response rate for the survey relating to 2009 was 78.7 per cent. In order to reduce the number of non-responses, reminders are sent several times by post or made by telephone; non-responses are integrated by means of data interpolation using the linear regression method.

Contact person: Statistics on Agriculture Annalisa Pallotti ph. +39 06 4673.4561