

PERFORMANCE OF FARMS IN EMILIA-ROMAGNA AND TUSCANY REGIONS:

An analysis based on the bookkeeping data.

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SUMMARY

The purpose of the present work is to analyse the economic performance and financial standing of a group of farms during the 2002-2005 period, thus providing an opportunity to evaluate ex-post the effects of the new common agricultural policy orientations.

The twenty agricultural enterprises studied occupy a total area of 8,000 acres and are situated in two regions of central-northern Italy: ten of the farms are in Emilia-Romagna and characterised by a prevalence of arable crops, while the remaining ten farms are in Tuscany and produce grapevines and olives in addition to arable crops.

This paper presents the results of a profitability and balance sheet analysis of the agricultural enterprises, and examines the reliance of their overall business performance on EU payments. In line with the new directions of community policy, the role of diversification in creating value is specifically addressed, not just in terms of multifunctionality but also from the broader perspective of multiple business activities.

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1. INTRODUCTION

The Office of Agricultural Accounting, a part of the Department of Agricultural Engineering and Economics of the University of Bologna, has been conducting business-economic studies of agricultural enterprises since 1961. The principal functions of the Accounting Office are the collection and processing of bookkeeping data from farms in order to obtain a general picture of the economic sustainability of the primary agriculture sector, dissemination of the knowledge acquired in relation to farm management, and the development of new business tools, with particular emphasis on dedicated software programs.

The Office of Agricultural Accounting collected the balance sheets and income statements for a group of twenty Italian farms of medium to large size, operating with hired labour on a time-work basis, situated in the Emilia-Romagna plains and in the hills of Tuscany. Although the limited number of farms means this is not a statistically representative sample, the acquisition and processing of their bookkeeping data can nevertheless provide a sufficiently detailed picture of the economic situation of the agricultural sector in the two regions under study.

2. OBJECTIVES

The objective of the study was to analyse the economic results achieved by the two groups of farms during the four-year period 2002-2005, looking at their business performance and examining in depth the principal production processes engaged in by the farms.

The above mentioned time span is one of particular interest for European agriculture, because it coincides with two significant moments for the common agricultural policy. In fact the issuing of Regulations (EC) n. 1782 and n. 1783 in June 2003 closed the cycle of CAP reform initiated in 1999 with Agenda 2000. This package effectively continued the redirection of community agricultural policy of the 1992 Mac Sharry reform, but also introduced a new emphasis on multifunctionality in agriculture and on the diversification of the economic activities of farmers (Buller, 2003). Agenda 2000 thus brought to its completion a process of reducing the use of income subsidies, reforming the conditions under which they are granted, and promoting the uptake of farming methods with low environmental impact. To this end, Regulation (CE) n.1259/1999 introduced two important criteria: eco-conditionality, and the modulation

of direct payments. The ensuing Fischler proposal, which started life as a mid-term review of the effects of Agenda 2000 aimed at fine-tuning the strategies for reaching its objectives, developed into a fully fledged reform in its own right, that proved in certain respects more far reaching than the preceding one. The general objectives of the Fischler Mid-Term Review included safeguarding the production activities of rural and mountain areas, enhancing the competitiveness of agricultural enterprises, and improving and stabilising agricultural revenues and the rate of employment in the primary sector. One distinctive feature of the new reform, which came into force in January 1, 2005¹, was the wide scope given to the individual member states to select what CAP tools to deploy from a pool of available alternatives (Pupo D'Andrea, 2005). In this connection we note first of all that Italy has opted for a full decoupling of subsidies, whose amounts are to be initially commensurate with the direct payments received during the three-year period 2000-2002, and then gradually reduced from 2005 to 2012 in order to finance rural development policies. In addition to the above decoupling option, other peculiar features of the Mid-Term Review are the conditionality of direct payments on the fulfilment of certain environmental, food safety and animal welfare criteria.

In the light of the above changes to the European agricultural policy landscape, the ability to monitor the business performance and economic situation of a group of agricultural enterprises during the period 2002-2005 provides an opportunity to evaluate ex-post the effects of the new common agricultural policy measures.

The purpose of the present work is therefore to verify the economic sustainability of the entrepreneurial activities undertaken by the studied farms, and their ability to create new wealth. To this end, this paper presents an analysis of the profitability and added value generated by the farms in question during the reference period, and examines the role of EU subsidies on their economic performance. In line with the current orientation of community policy, the contribution of diversification to value creation is specifically examined, not just in terms of multifunctionality, but also from the broader perspective of multiple business activities.

A second objective was to examine the economic results of the individual productions in order to understand how the agricultural

¹ The single payment scheme was implemented in Italy with M.D. n.1787 of 5 August 2005 with the exception of the subsidies.

enterprises responded to the new community agricultural policy measures, and the consequently altered profitability dynamics of certain crops. To this end, a technical-economic analysis of the principal crops was conducted to determine the size of EU payments and their importance for the economic sustainability of the characteristic productions of the two groups of farms.

3. MATERIALS AND METHODS

3.1 Materials

The information analysed in this study was drawn from the bookkeeping results of 20 farms for the accounting periods between 2002-2005. More specifically, the data employed was extracted from the following documents: income statements, balance sheets, and crop enterprise analysis reports (Ghelfi, 2001). The studied farms occupy a total area of 8,000 acres, and are situated in two regions of central-northern Italy: 10 in Emilia-Romagna, with an average area of 400 acres, and 10 in Tuscany with an average area of 433 acres. The productive organisation of the Emilia-Romagna group of farms is characterised by a prevalence of arable crops (92% of the UAL), with cereals accounting for 55% of the UAL. The Tuscan farms, though also characterised by a prevalence of arable crops (70%), differ from those of Emilia-Romagna due to a greater percentage of fruit species, with grapevines in fact accounting for 17% of the UAL, and olive growing occupying 5% of the UAL on average. For both groups of farms, the set-aside land was on average 7% of the total farm area (Table 1).

In the light of the unaltered composition of the two groups of farms for the duration of the study period, and the consistent methodology employed by the Accounting Office for collecting and processing the data, any changes observed in the economic-assets situation of each group of farms can be considered particularly informative.

The accounting data was recorded by the double-entry bookkeeping method (Bregoli, 1999). In order to streamline and facilitate entry of the bookkeeping data and its initial processing, the Accounting Office supplied the farmers with a software program that generated the principal accounting documents on site, and transmitted the data to the Accounting

Office for validation of the correctness of the accounting entries (Barazutti *et al.*, 2001).

An asset-based accounting method was chosen as this makes it possible to record and manage not only interactions with third parties giving rise to money exchanges, but also the value of transactions internal to the farm. Such an approach has two important implications. Firstly, the computed revenues and expenses will correspond to the production and consumption values, rather than to "cash receipts" and "cash payments". And secondly, the analytical accounting process will be able to generate crop enterprise analysis reports in addition to the financial statements.

3.2 Methods of analysis

The present work maintains the same methodology used in the preceding study presented at Red Cedar Lake (Wisconsin) during the 8th Joint conference on Food, Agriculture and the Environment (Canavari *et al.*, 2002). It was decided to unify the analysis criteria in this way to permit meaningful comparisons with the previous results and frame this second study as the natural continuation of the foregoing work. As a result, the two studies together provide a wide-ranging overview of the impact of the common agricultural policy on the performance and the technical-economic characteristics of farms.

The methods adopted for analysing the profitability ratios, income statements and the various production processes engaged in by each group of farms are described below.

Profitability ratio

The income statements were produced on a Gross Internal Production and Net Added Value basis, which is better able than other approaches to highlight the production of new wealth and examine how it is distributed among the various components involved in its formation. The principal indicators which emerged from this analysis were the following:

- Revenue, corresponding to the value of the production output of the farm's activities and the EU payments received.
- Intermediate consumption, comprising the costs for raw material consumption and procurement of services.
- Value added, which represents a measure of the wealth produced by the farm. This is a fundamental indicator of the productivity and size

of the agricultural enterprise.

- Operating profit, corresponding to the profits generated by ongoing operations of the farm. This is a valid measure of earning power because it is unaffected by how the enterprise is financed or by its particular ratio of own capital to external capital.
- Ordinary farm income, corresponding to the revenues generated by the farm's ordinary activities, exclusive of any extraordinary components.

By analysing the composition and distribution of the new wealth produced in this way, it was possible to determine the proportion of net added value attributable to the remuneration of labour and of external and internal capital investments. The profitability analysis was then completed by calculating the following profitability ratios: Return On Equity (Net Profit/Equity), Return On Investments (Operating Profit/Investments) and Investment Turnover Rate (Revenue/Investments). And finally, the economic impact of EU payments was assessed by calculating the share of their contribution to both the production values and net profit values of the farms. The income statements were expressed in both percentage and absolute value terms to facilitate analysis of the principal aggregations and minimise distortions arising from changes in the price system during the period under study.

Balance sheet

The balance sheet was drawn up in accordance with a source-use criterion. The balance sheet asset entries were classified according to the final use of the investments, while the liabilities were grouped according to the provenance of the funds.

The investments correspond to the invested capital (equal to the value of the assets net of the accumulated depreciation) and are classified as follows:

- Long term assets, comprising land, buildings and plantations.
- Working capital, comprising machines, inventory and the financial components.

The liabilities comprise:

- External capital, i.e. debts toward third parties.
- Equity, i.e. contributions by the owner and self-financing.

In order to facilitate comparisons, it was decided to harmonise the results of farms with different forms of land ownership and tenure by treating the value of rented land as invested capital, and the above value is consequently included under the external capital entries. The rationale is

that land rental constitutes a form of recourse to external capital that is comparable to borrowing, although in the case of loans the capital is financial and undifferentiated, whereas in the case of land rental it is differentiated.

In connection with the investments, it should be pointed out that the individual entries for the farms were computed exclusively on a cost value basis.

To better reveal the entrepreneurial dynamics, the composition of the balance sheet was analysed with the individual asset and liability entries expressed in percentage terms. This clarified the manner in which farms went about adjusting and modulating their investments and financing.

Crop enterprise analysis

The calculation method employed for crop enterprise analysis foresees the distinction of the costs in two categories:

- Specific costs, comprising all those costs which can be attributed to a particular production process on the basis of some objective criterion, which depending on the particular case might be the quantity used (raw materials), the number of hours of use (labour and farm machinery) or the specificity of the cost (insurance, depreciation). The difference between the revenues and the specific costs gives the gross margin.
- Overhead costs, comprising all the remaining costs that cannot be attributed to a production process on the basis of some objective criterion, and which are therefore distributed among production processes on the basis of an estimation. Expenditures for taxes and the maintenance of land capital assets were allocated on the basis of Used Agricultural Land area, while those for administration, management and other common costs were assigned on a proportional basis to the specific costs. However financial charges and rental costs were not distributed among the individual production processes, so that the figure obtained is not a net profit, but rather an operating profit for each production process.

For each of the entries and technical-economic parameters analysed, we computed the average annual rate of variation for the period under study. This value, obtained through linearization of an exponential type regression function, provides a more immediate and accurate picture of the trends that emerged over the years.

4 RESULTS

4.1 Profitability

The business performance of the two groups of studied farms differed considerably, a fact which can be attributed to dissimilarities in their organisational structures and entrepreneurial approaches. Before looking at some possible points of comparison, it is useful to analytically examine the economic results more in depth.

The reclassified income statement provides a means for investigating the revenue dynamics. In the analysis, the revenues are broken down into those generated by each of the various farm activities (Table 2), thereby obtaining the revenue shares attributed to crop productions, to animal productions, to EU payments, and residual revenues. This method intentionally singles out those activities that were once classified as residual, but today play an increasingly important role in the economics of the agricultural enterprise. The proportion of these "residual" activities in fact serves as an indicator of differentiation, that can be used to track the level of uptake of EU policies promoting multifunctionality-- though for the cases under study we should more accurately speak of multiple activities in the broader sense. It is consequently of interest to detail the various components which make up the "miscellaneous" category:

- “Asset management”, comprising the total revenues generated by real estate assets, i.e. from the leasing of buildings of a residential character. However in the interests of preserving the legibility of the income statement, capital gains/capital losses from the transfer of real estate are not included here.
- “Processing”: this includes all those activities classified as "agroindustrial", such as the various phases of wine making, bottling and marketing, or the production of oil and its attendant processes.
- “Farm holidays”: in addition to actual farm holidays, this category also includes revenues from game-hunting reserves and from any educational livestock farms or museums situated within the farm complex.
- “Other”: this residual category comprises revenues from parks or gardens, the management of generic storehouses or hay barns, and insurance indemnities.

We began our analysis by examining the income statements for the farms of Emilia-Romagna, which can be compared with the results of a preceding study conducted by our Accounting Office for the period 1994/2001. However such a comparison must be approached with caution, because despite the type of production being the same in both cases (i.e. arable crops), the sample in this second study did not include the farms of Veneto region and therefore comprised just 10 farms. Looking at the “miscellaneous” class of activities, we note that their share of total revenues increased from an average of 2.0% in 1994/2001 to 10.3% in 2002 before going on to exceed 12%. The comparisons between average values must be effected in percentage terms, due to the generally larger size of the farms in this new study, up from an average of 300 acres to around 400 acres. The rise in farm diversification, at a rate of 7.1% per year, is largely attributable to the introduction of farm holidays during the 2002-2003 period. The largest component is the rental of buildings for residential use, while other activities are absent.

From an entrepreneurial standpoint, however, the most important element is the final entry in the income statement: net farm income. Compared with the period of the preceding study, the profit situation looks extremely bleak. And even within the four-year period of the present study, with the exception of the drought year 2003, the results are very sluggish with an annual growth that only just matches the ISTAT (Italian National Statistical Institute) inflation rate. There was a nearly two-fold increase in intermediate consumption, with a particularly steep rise in fuel expenditure (+9.87%). Among the depreciation entries we note the decline in those for plantations, although a much more significant trend for the types of farm under study is the +20.56% rise in the "Other" category, as a result of increases in miscellaneous investments, in particular for building renovations. The decline in machinery depreciation is more than offset by a corresponding increase in the use of contractors, in the light of which fact the increase in fuel expenditure is all the more significant, given that the actual consumption has decreased.

An interesting development emerges from the breakdown of labour expenditure, where the considerable rise in managerial personnel costs (+8.33%) suggests that the increasing complexity of farm organisations is creating a demand for new professional skills.

A final and highly significant point is that the economic viability of the farms continues to be dependent upon EU payments, which on average accounted for over 18% of revenues during the four years in question.

Turning to the results of the Tuscan group of farms (table 3), the most immediately noticeable trend is the collapse in net farm income, from more than 250,000 Euro per farm to slightly over 60,000 Euro per farm. This dramatic downturn is due to a complex set of causes, including a decline in revenues from crop productions in the order of almost 7% per year, and a significant reduction in EU payments in 2005. However the most significant component is the drop of approximately 12% in processing revenues, largely attributable to variations in wine cellar inventory following a steep decline in wine prices during these years. Also noteworthy is the decline in residual "miscellaneous" expenditure, for both raw materials and intermediate consumption in general, which probably reflects attempts by management to counter the crisis by cutting marginal costs.

At this point it is interesting to compare the results for the two groups of studied farms. We note that in Tuscany the typical farm structure is already fairly diversified, with miscellaneous activities accounting for 2/3 of revenues, as compared with an average of 11.8% for Emilia-Romagna. However this does not seem to have stabilised the economic results, which on the contrary appear more highly fluctuating. It should be pointed out here that diversification does not necessarily cancel out risk, particularly if the strategy is not countercyclical as in the case of Tuscany, where the investments were all concatenated and included the high-risk HO.RE.CA business sector. Notwithstanding all this, and despite a downward trend over the four years, the Tuscan farms did achieve a higher profitability than those in Emilia-Romagna (table 4). The computed indicators confirm the above comparison, with values for ROE and ROI lower on average by 1% in Emilia-Romagna. Reliance on subsidies was also heavier in Emilia-Romagna due its types of agricultural productions, with EU payments accounting for 18.3% of revenues on average during the four-year period, against 12% in Tuscany. A highly significant aspect is the role of EU payments in assuring a positive net farm income. Without them, the net results for Emilia-Romagna would have been negative for all four years, while in Tuscany this is true only for 2005.

4.2 Investments

The structure of the balance sheet assets and liabilities remained tellingly static for both groups of farms. In Emilia-Romagna the value of

building assets rose from 2% in the preceding study to 5% in 2005, following the inclusion of investments in the asset management and farm holiday categories (table 6). External capital contributions to the farms are virtually non-existent, with the near totality of financing coming from own capital. This could be considered positive in that it allows the farms margins for growth and is indicative of asset solidity. However it also raises the question of whether it is a matter of choice or—as perhaps more likely—a result of the farms' inability to attract outside capital due to their difficulty in generating value. In any case the most significant element emerging from the balance sheets is the overwhelming prevalence of farmland value, which accounts for 80% of total assets, a figure unchanged since the preceding study of 1994/2001. This percentage is a reflection of extremely high land values, and also constitutes a very serious problem. It effectively impedes the entrepreneurial dynamic by suppressing land purchases and sales and erecting barriers to potential new entrants, as well as holding back profit performance. Bearing this out, the profitability is near zero and turnover reduced to an average of 8% (table 4).

The situation is somewhat better in Tuscany, where farmland accounts for 48.7% of total assets (table 7), and the average turnover rate is 17%. There is a small percentage of external capital, amounting to just 8% of the turnover. In any case, continued reliance on loans will in future be influenced by the recommendations of the new Basel II convention, with the granting of financing by banks increasingly conditional upon the borrower's ability to generate income—a trend that will obviously penalise agricultural enterprises.

4.3 Crop enterprise analysis

From the data analysis, it can be derived the way in which the crop management plans used by the farms, during the analysed period, were not affected by changes due to the decisions of agricultural policy. In fact, in the period 2002-05 the crops ratios were quite static even in 2005, first year implicated by decoupling of subsidies of the Fischler Reform (Graphs 1 and 2).

In 2004 we can see a fall in the percentage of set aside, an allowance given to the farms after the droughty 2003. A problematic situation, both in Emilia-Romagna and in Tuscany, regards sugar beet. The European

reform of sugar regulations entails a drastic reorganization of the sugar industry in Italy, with the closure of numerous plants, and the loss of an opportunity for many farms. In Tuscany we observe a raise of the area covered by “other cereals”, from 2.7% in 2002 to 14.4% in 2005, in large part attributable to common wheat, a downsize of sunflower and sugar beet, and instead a new crop: tomato. The escalation of tomato, 0.0% in 2002, 0.8% in 2003, 1.4% in 2004, 1.7% in 2005, ends in 2006 with the drop of revenue probably linked with the raise of Chinese production.

Tables 8, 9, 10 and 11 explain, per acre, costs and revenues for the main crops as well as the unit yields in Emilia-Romagna; tables 12, 13, 14 and 15 show the same for Tuscany. We analysed the 4 main crops, which represents more than 2/3 of used agricultural land (UAL) for each pool of farms: Common Wheat, Corn, Sugar beet and Soy bean in Emilia-Romagna, Durum Wheat, Sunflower, Olive and Grapes in Tuscany.

In Emilia-Romagna the average yields of the considered period (2002/2005) are quite similar, or a little better, than those of the preceding survey (1994/2001). Considerable is the reduction of the hours for hired labour, from - 20% for wheat to -34% for corn.

The product return basically remained constant, and speaking in current prices it means a loss, except for a increase of soy bean, with a +22%.

EU payments in 2005 are the same for any cultivation, in fact, after the decoupling (single payment) of Fischler Reform, for the first time we calculated them in proportion of UAL. It is remarkable the increase of the sugar beet payments, before not concerned with the EU payments, and, at the same time the drop for the other crops.

Outstanding the rise of specific costs, particularly for lease and machinery, linked with oil price boom.

All the four herbaceous crops analysed would have a negative profitability without EU payments. The economic unsustainability of all cultivations in absence of EU subsidies is highlighted. Besides we note a drop in the profitability between the two surveys. The average of the net farm income decreased within 17% for sugar beet, 25% for wheat, 36% for soybean and 56% for corn.

In Tuscany, as in Emilia-Romagna, there was a significant decrease of the yield in the droughty 2003, and in a comparison of the two period, 1994/2001 – 2002/2005, a fall in the production, per acre, of olive (-18%),

more remarkable for grapes (-46%). Sunflower increased the yield from 0.5 ton. to 0.9 ton. per acre.

In these farms, we observe a sharp reduction of hours employed for hired labour per acre contrary to the other region. The cultivations are characterised by a variable product return, in the comparison of the two survey averages: steady Durum, negative olive (-14%), very negative grapes (-33%), very good sunflower (51%) due to the excellent quantities produced/acre.

The EU payments for the herbaceous cultivations, which benefit of subsidies since 2004, tend to diminish after decoupling in 2005.

Specific costs and particularly the costs for lease and machinery were almost static, except for olive with a respective increment of 29% and 55%.

The net farm incomes were bad for the herbaceous cultivations, catastrophic for olive and grapes, almost continuously in loss in the four years period. A disillusion, for grapes, of which predicted in the previous study: “the grapes seem to be the only crop able to maintain a certain profitability”.

5 FINAL REMARKS

The analysis of this four-year period revealed a number of significant points, first among which was the impact of the Common Agricultural Policy on the economic performance of farms. The viability of agricultural enterprises continues to be dependent on subsidies, particularly in Emilia-Romagna where EU payments make up 18% of total revenues, and therefore play a decisive role in maintaining the region's slim operating margin. The decoupling of EU payments introduced by the reform has not had any significant effects on revenues or on the choice of productions during its first year of coming into force in 2005; farms do not seem to have taken advantage of the new freedom to cultivate whatever best suits their characteristics and business structure. It is only in the 2006 crop plans for Tuscany that we find any increase in the investments allocated to forage crops. The progressive reduction in EU payments is prompting farmers to diversify in an attempt to achieve economic sustainability-- a process that constitutes both a risk and a development opportunity. In this respect the Tuscan farms have been more successful, exhibiting an

increased ability to generate wealth (ROE 2002/05 equal to 4%). It must in any case be borne in mind that each region has its characteristics, and that the envisaged introduction of multiple activities carries with it a higher entrepreneurial risk. In fact the two groups of studied farms were found to differ considerably, both in terms of their business structure and the organisational and entrepreneurial approach. The farms of Tuscany tend to be fully fledged agroindustrial companies, while those in Emilia-Romagna, though already operating on an entrepreneurial basis, retain a more purely agricultural stamp. That said, a dynamic of change appears to be emerging in both regions which sees farmers branching out from the role of simple producers to become providers of combined services. In this connection we can cite Normann's observation (1996) that many problems of the agricultural sector arise precisely from a failure to realise that, in agriculture too, there is a shift toward a services economy. "Individual farmers, managers, public administrators and policy-makers are attempting to solve problems with prescriptions that belong to a bygone era-- that of continuous industrialisation and regulations. However the approaches and purviews of industrialisation are ill suited to a services culture and so produce poor results."

Other significant points which emerge are the low profitability of farms in Emilia-Romagna, which barely achieve 1% ROE—calling to mind the Serpieri valuation of land revenues--and the dramatic decline in the performance of Tuscan farms. Finally, there is the remarkable prevalence of farmland on total asset values (80% in Emilia, 50% in Tuscany), which obliterates profitability and stifles the dynamism of the agricultural economy.

Table 1 – Farm units

Description		Emilia-Romagna	Toscana	Total
<u>Number of farms</u>	no.	10	10	20
<u>Acreage</u>	acre			
Total	s	4,001.4	4,327.6	8,329.0
Per farm	acre s	400.1	432.8	416.5
<u>Productive nature</u>				
Field crops	%	92.0	70.0	80.6
Fruit	%	1.1	22.5	12.2
Set-Aside	%	7.0	7.5	7.2

Source: Office of Agricultural Accounting – D.E.I.Agra., University of Bologna

Table 2. Income statements: Emilia-Romagna

	Average 94-01	2002	2003	2004	2005	Average 02-05	Tav (%)					
REVENUE	100.0%	266,243	100.0%	290,310	100.0%	293,524	100.0%	282,437	100.0%	283,285	100.0%	1,90
CROPS, FRUIT AND WYNEYEARD	81.3%	179,604	67.5%	191,951	66.1%	203,396	69.3%	188,720	66.8%	190,918	67.4%	2,09
DAIRY AND LIVESTOCK	1.2%	6,013	2.3%	6,720	2.3%	5,485	1.9%	6,402	2.3%	6,905	2.4%	-0,15
MISCELLANEOUS	2.0%	27,493	10.3%	36,397	12.5%	35,490	12.1%	34,891	12.4%	33,568	11.8%	7,14
ASSET MANAGEMENT	0.0%	26,718	10.0%	31,204	10.7%	29,572	10.1%	29,195	10.3%	29,172	10.3%	2,14
PROCESSING	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0,00
FARM HOLIDAYS	0.0%	775	0.3%	5,192	1.8%	5,918	2.0%	5,696	2.0%	4,395	1.6%	84,35
OTHER	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0,00
PAYMENTS	15.5%	53,134	20.0%	55,243	19.0%	49,153	16.7%	52,423	18.6%	51,895	18.3%	-1,56
INTERMEDIATE CONSUMPTION	40.9%	136,462	51.3%	132,964	45.8%	147,760	50.3%	148,900	52.7%	141,949	50.1%	3,74
RAW MATERIALS	24.8%	81,734	30.7%	77,068	26.5%	92,211	31.4%	87,769	31.1%	84,696	29.9%	4,01
FERTILIZER	5.0%	14,568	5.5%	13,413	4.6%	17,194	5.9%	15,557	5.5%	15,183	5.4%	4,55
CHEMICALS	3.9%	8,479	3.2%	8,086	2.8%	8,972	3.1%	7,878	2.8%	8,354	2.9%	-1,16
HERBICIDE	3.5%	9,682	3.6%	10,778	3.7%	10,595	3.6%	11,175	4.0%	10,558	3.7%	4,22
SEED AND PLANTS	5.5%	17,149	6.4%	17,415	6.0%	19,747	6.7%	17,773	6.3%	18,021	6.4%	2,36
FUEL	2.2%	8,069	3.0%	6,427	2.2%	7,816	2.7%	10,346	3.7%	8,165	2.9%	9,87
MISCELLANEOUS	4.8%	23,787	8.9%	20,949	7.2%	27,887	9.5%	25,041	8.9%	24,416	8.6%	4,50
LEASE	9.5%	29,090	10.9%	32,534	11.2%	31,886	10.9%	36,758	13.0%	32,567	11.5%	7,05
INSURANCE	1.2%	4,223	1.6%	3,258	1.1%	3,047	1.0%	2,930	1.0%	3,364	1.2%	-10,98
SPECIFIC	0.8%	2,637	1.0%	1,679	0.6%	1,487	0.5%	1,233	0.4%	1,759	0.6%	-21,34
GENERAL	0.5%	1,586	0.6%	1,578	0.5%	1,560	0.5%	1,697	0.6%	1,605	0.6%	1,93
ADMINISTRATION	4.2%	16,958	6.4%	16,263	5.6%	15,833	5.4%	16,441	5.8%	16,374	5.8%	-1,19
MISCELLANEOUS	1.2%	4,457	1.7%	3,841	1.3%	4,782	1.6%	5,002	1.8%	4,948	1.7%	5,82
GROSS VALUE ADDED	59.1%	129,781	48.7%	157,346	54.2%	145,764	49.7%	133,537	47.3%	141,336	49.9%	0,09
DEPRECIATION	5.8%	31,163	11.7%	33,800	11.6%	37,796	12.9%	34,195	12.1%	34,238	12.1%	3,98
PLANTATION	0.4%	641	0.2%	528	0.2%	528	0.2%	444	0.2%	535	0.2%	-10,43
MACHINERY AND EQUIPMENT	3.7%	21,160	7.9%	20,708	7.1%	18,659	6.4%	18,434	6.5%	19,740	7.0%	-5,05
OTHER	1.7%	9,362	3.5%	12,563	4.3%	18,609	6.3%	15,317	5.4%	13,963	4.9%	20,56
NET VALUE ADDED	53.4%	98,618	37.0%	123,546	42.6%	107,969	36.8%	99,342	35.2%	107,098	37.8%	-1,12
TAXES	6.0%	18,504	6.9%	16,868	5.8%	18,328	6.2%	17,365	6.1%	18,064	6.4%	-1,07
HIRE LABOUR	20.8%	61,144	23.0%	56,628	19.5%	66,728	22.7%	64,009	22.7%	63,001	22.2%	3,06
OPERATORS	14.9%	42,091	15.8%	35,429	12.2%	44,825	15.3%	39,404	14.0%	40,437	14.3%	0,37
MANAGEMENT	5.9%	19,052	7.2%	21,199	7.3%	21,902	7.5%	24,605	8.7%	22,563	8.0%	8,33
OPERATING PROFIT	26.5%	18,971	7.1%	50,050	17.2%	22,913	7.8%	17,968	6.4%	26,033	9.2%	-9,01
INTEREST EXPENSES	1.0%	3,481	1.3%	4,515	1.6%	2,334	0.8%	633	0.2%	2,741	1.0%	-43,86
LAND RENTS	2.5%	4,232	1.6%	1,980	0.7%	1,741	0.6%	1,942	0.7%	2,474	0.9%	-21,85
ORDINARY FARM INCOME	23.0%	11,258	4.2%	43,555	15.0%	18,839	6.4%	15,392	5.4%	20,818	7.3%	1,01
EXTRAORDINARY CHARGES	0.7%	2,756	1.0%	1,932	0.7%	493	0.2%	1,154	0.4%	1,584	0.6%	-32,81
EXTRAORDINARY CREDITS	1.6%	4,060	1.5%	2,588	0.9%	3,056	1.0%	2,841	1.0%	3,841	1.4%	-8,66
NET FARM INCOME	23.9%	12,562	4.7%	44,211	15.2%	21,401	7.3%	17,079	6.0%	23,076	8.1%	1,98

Source: Ufficio di Contabilità agraria - D.E.I.Agra. - Alma Mater Studiorum Università di Bologna

Table 3. Income statements: Tuscany

	2002		2003		2004		2005		Average 02-05		Tav (%)
REVENUE	856,564	100.0%	800,501	100.0%	748,414	100.0%	664,555	100.0%	767,509	100.0%	-7.95
CROPS, FRUIT AND WYNEYEARD	179,040	20.9%	157,472	19.7%	172,151	23.0%	137,887	20.7%	161,637	21.1%	-6.71
DAIRY AND LIVESTOCK	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0.00
MISCELLANEOUS	581,559	67.9%	548,460	68.5%	481,994	64.4%	442,532	66.6%	513,636	66.9%	-9.05
ASSET MANAGEMENT	33,806	3.9%	38,586	4.8%	40,094	5.4%	37,884	5.7%	37,592	4.9%	3.87
PROCESSING	470,031	54.9%	432,908	54.1%	358,933	48.0%	327,040	49.2%	397,228	51.8%	-11.98
FARM HOLIDAYS	33,296	3.9%	25,960	3.2%	35,980	4.8%	33,171	5.0%	32,101	4.2%	3.20
OTHER	44,427	5.2%	51,006	6.4%	46,986	6.3%	44,438	6.7%	46,714	6.1%	-0.81
PAYMENTS	95,965	11.2%	94,570	11.8%	94,270	12.6%	84,136	12.7%	92,235	12.0%	-3.90
INTERMEDIATE CONSUMPTION	375,767	43.9%	376,867	47.1%	343,277	45.9%	353,227	53.2%	362,284	47.2%	-2.75
RAW MATERIALS	263,661	30.8%	272,848	34.1%	243,182	32.5%	260,683	39.2%	260,093	33.9%	-1.48
FERTILIZER	15,622	1.8%	19,500	2.4%	28,867	3.9%	20,475	3.1%	21,116	2.8%	12.79
CHEMICALS	8,235	1.0%	7,350	0.9%	7,126	1.0%	8,183	1.2%	7,723	1.0%	-0.50
HERBICIDE	5,437	0.6%	5,007	0.6%	6,157	0.8%	4,596	0.7%	5,299	0.7%	-2.93
SEED AND PLANTS	9,868	1.2%	19,520	2.4%	27,832	3.7%	25,842	3.9%	20,766	2.7%	38.30
FUEL	15,137	1.8%	15,348	1.9%	16,665	2.2%	18,190	2.7%	16,335	2.1%	6.54
MISCELLANEOUS	209,361	24.4%	206,123	25.7%	156,534	20.9%	183,397	27.6%	188,854	24.6%	-6.50
LEASE	27,596	3.2%	29,553	3.7%	29,342	3.9%	31,320	4.7%	29,453	3.8%	3.80
INSURANCE	4,613	0.5%	4,604	0.6%	7,502	1.0%	5,449	0.8%	5,542	0.7%	10.38
SPECIFIC	1,533	0.2%	1,501	0.2%	2,569	0.3%	1,323	0.2%	1,731	0.2%	0.96
GENERAL	3,080	0.4%	3,104	0.4%	4,933	0.7%	4,126	0.6%	3,811	0.5%	14.35
ADMINISTRATION	30,945	3.6%	36,779	4.6%	34,338	4.6%	36,158	5.4%	34,555	4.5%	4.06
MISCELLANEOUS	48,953	5.7%	33,083	4.1%	28,913	3.9%	19,617	3.0%	32,641	4.3%	-25.01
GROSS VALUE ADDED	480,797	56.1%	423,634	52.9%	405,137	54.1%	311,329	46.8%	405,224	52.8%	-12.61
DEPRECIATION	31,454	3.7%	38,185	4.8%	35,724	4.8%	34,919	5.3%	35,071	4.6%	2.50
PLANTATION	10,350	1.2%	9,831	1.2%	10,515	1.4%	10,515	1.6%	10,303	1.3%	1.15
MACHINERY AND EQUIPMENT	12,213	1.4%	12,372	1.5%	13,787	1.8%	13,183	2.0%	12,889	1.7%	3.43
OTHER	8,892	1.0%	15,983	2.0%	11,423	1.5%	11,222	1.7%	11,880	1.5%	3.69
NET VALUE ADDED	449,343	52.5%	385,449	48.2%	369,413	49.4%	276,410	41.6%	370,154	48.2%	-13.93
TAXES	2,788	0.3%	5,379	0.7%	7,300	1.0%	4,204	0.6%	4,918	0.6%	16.61
HIRE LABOUR	165,872	19.4%	160,078	20.0%	179,936	24.0%	181,248	27.3%	171,783	22.4%	3.90
OPERATORS	121,006	14.1%	115,231	14.4%	137,066	18.3%	144,513	21.7%	129,454	16.9%	7.32
MANAGEMENT	44,866	5.2%	44,847	5.6%	42,870	5.7%	36,735	5.5%	42,329	5.5%	-6.25
OPERATING PROFIT	280,683	32.8%	219,991	27.5%	182,178	24.3%	90,959	13.7%	193,452	25.2%	-30.02
INTEREST EXPENSES	8,201	1.0%	5,586	0.7%	10,317	1.4%	9,958	1.5%	8,515	1.1%	12.71
LAND RENTS	22,028	2.6%	22,234	2.8%	22,333	3.0%	23,151	3.5%	22,437	2.9%	1.55
ORDINARY FARM INCOME	250,454	29.2%	192,171	24.0%	149,528	20.0%	57,850	8.7%	162,501	21.2%	-37.17
EXTRAORDINARY CHARGES	1,042	0.1%	5,677	0.7%	857	0.1%	644	0.1%	2,055	0.3%	-28.35
EXTRAORDINARY CREDITS	5,051	0.6%	4,319	0.5%	5,638	0.8%	6,588	1.0%	5,399	0.7%	11.22
NET FARM INCOME	254,463	29.7%	190,813	23.8%	154,309	20.6%	63,794	9.6%	165,844	21.6%	-35.36

Source: Ufficio di Contabilità agraria - D.E.I.Agra. - Alma Mater Studiorum Università di Bologna

Table 4. Profitability ratio

	SPECIFICATION	Average 94/01	2002	2003	2004	2005	Average 02/05	Tav(%)
EMILIA-ROMAGNA	ROE	3.25	0.38	1.32	0.63	0.48	0.67	-0.6
	ROI	3.07	0.56	1.44	0.65	0.49	0.74	-11.1
	ROS	26.54	7.13	17.24	7.81	6.36	9.19	-10.7
	INVESTMENT TURNOVER RATE	11.58	7.81	8.37	8.38	7.69	8.05	-0.5
TUSCANY	ROE		6.15	4.57	3.70	1.57	4.01	-34.9
	ROI		6.00	4.91	4.06	2.08	4.30	-28.6
	ROS		32.77	27.48	24.34	13.69	25.21	-24.0
	INVESTMENT TURNOVER RATE		18.30	17.88	16.70	15.20	17.04	-6

Source: Ufficio di Contabilità agraria - D.E.I.Agra. - Alma Mater Studiorum Università di Bologna

Table 5. EU payments

	SPECIFICATION	Average 94-01	2002	2003	2004	2005	Average 02-05	Tav(%)
EMILIA-ROMAGNA	EU PAYMENTS / REVENUE	15.5	20.0	28.8	16.8	18.5	18.3	-7.4
	EU PAYMENTS / NET FARM INCOME	64.7	423.0	125.0	229.7	306.9	224.9	-3.5
TUSCANY	EU PAYMENTS / REVENUE		11.2	11.8	12.6	12.7	12.0	4.4
	EU PAYMENTS / NET FARM INCOME		37.7	49.6	61.1	131.9	55.6	48.7

Source: Ufficio di Contabilità agraria - D.E.I.Agra. - Alma Mater Studiorum Università di Bologna

Table 6. Balance sheets: Emilia-Romagna

	Average 94-01	2002	2003	2004	2005	Average 02-05	Tav (%)					
INVESTMENTS	100.0%	3,407,511	100.0%	3,467,094	100.0%	3,503,881	100.0%	3,672,399	100.0%	3,517,221	100.0%	2.4
LONG TERM FARM ASSETS	84.3%	3,091,749	90.7%	3,085,660	89.0%	3,101,719	88.5%	3,272,757	89.1%	3,137,971	89.2%	1.8
FARMLAND	80.1%	2,756,073	80.9%	2,755,240	79.5%	2,754,598	78.6%	2,939,092	80.0%	2,801,251	79.6%	1.9
IMPROVEMENTS	1.2%	114,479	3.4%	124,107	3.6%	109,210	3.1%	94,076	2.6%	110,468	3.1%	-6.9
BUILDINGS	2.0%	160,863	4.7%	167,452	4.8%	182,283	5.2%	182,335	5.0%	173,233	4.9%	4.7
PLANTATION	0.9%	60,333	1.8%	38,861	1.1%	55,627	1.6%	57,253	1.6%	53,019	1.5%	2.0
WORKING CAPITAL	15.7%	315,762	9.3%	381,434	11.0%	402,163	11.5%	399,642	10.9%	379,250	10.8%	7.9
MACHINERY AND EQUIPMENT	3.1%	132,873	3.9%	145,250	4.2%	144,732	4.1%	143,221	3.9%	146,019	4.2%	2.2
INVENTORIES	1.2%	39,808	1.2%	10,858	0.3%	26,099	0.7%	49,248	1.3%	31,503	0.9%	16.4
GROWING CROPS	1.1%	32,843	1.0%	36,170	1.0%	43,200	1.2%	42,688	1.2%	38,725	1.1%	10.1
LIVESTOCK	0.0%	11,879	0.3%	14,183	0.4%	13,333	0.4%	7,500	0.2%	11,724	0.3%	-13.4
RECEIVABLES	3.6%	35,974	1.1%	75,899	2.2%	122,293	3.5%	100,952	2.7%	83,779	2.4%	42.9
SECURITIES	1.0%	3,885	0.1%	4,001	0.1%	4,010	0.1%	4,216	0.1%	4,028	0.1%	2.5
CASH AND BANK BALANCES	5.7%	51,760	1.5%	82,354	2.4%	46,258	1.3%	48,764	1.3%	57,284	1.6%	-7.3
PREPAID EXPENSES	0.1%	6,742	0.2%	12,718	0.4%	2,237	0.1%	3,055	0.1%	6,188	0.2%	-33.7
LIABILITIES	100.0%	3,407,511	100.0%	3,467,094	100.0%	3,503,881	100.0%	3,672,399	100.0%	3,517,221	100.0%	2.4
EQUITY	85.3%	3,312,433	97.2%	3,361,957	97.0%	3,410,026	97.3%	3,589,008	97.7%	3,422,856	97.3%	2.6
EXTERNAL CAPITAL	14.7%	95,078	2.8%	105,137	3.0%	93,856	2.7%	83,391	2.3%	94,366	2.7%	-4.9
RETIREMENT BENEFIT PLANS	0.4%	6,163	0.2%	6,679	0.2%	7,579	0.2%	11,634	0.3%	8,242	0.2%	22.5
LOANS	12.3%	43,350	1.3%	41,374	1.2%	49,354	1.4%	41,119	1.1%	43,799	1.2%	0.2
PAYABLES	2.0%	43,931	1.3%	57,084	1.6%	36,922	1.1%	31,360	0.9%	42,324	1.2%	-13.5
DEFERRED REVENUES	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0

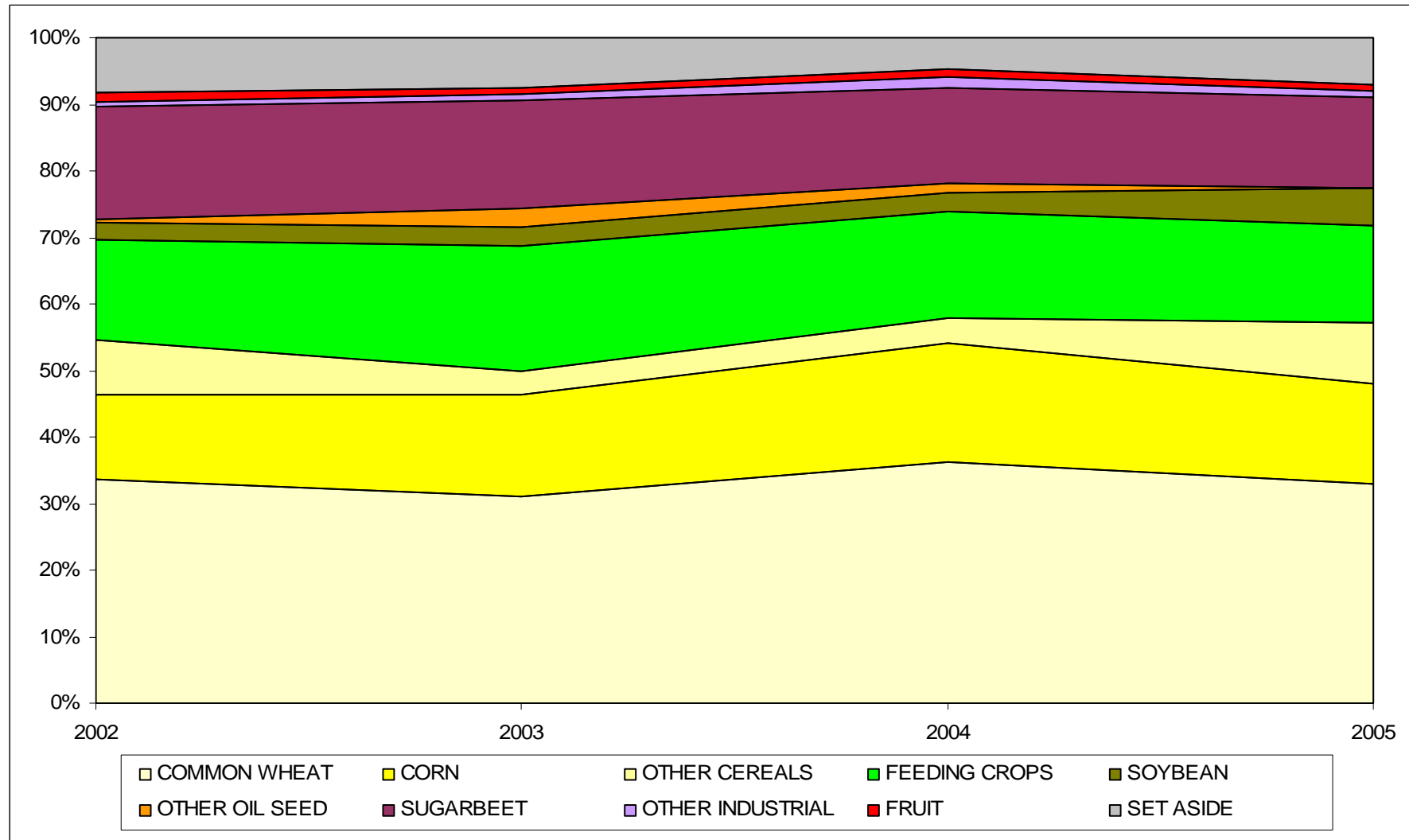
Source: Ufficio di Contabilità agraria - D.E.I.Agra. - Alma Mater Studiorum Università di Bologna

Table 7. Balance sheets: Tuscany

	2002		2003		2004		2005		Average 02-05		Tav (%)
INVESTMENTS	4,681,409	100.0%	4,478,065	100.0%	4,482,679	100.0%	4,370,911	100.0%	4,503,266	100.0%	-2.0
LONG TERM FARM ASSETS	3,625,055	77.4%	3,625,584	81.0%	3,672,568	81.9%	3,601,029	82.4%	3,631,059	80.6%	-0.1
FARMLAND	2,228,436	47.6%	2,189,169	48.9%	2,184,169	48.7%	2,167,419	49.6%	2,192,298	48.7%	-0.9
IMPROVEMENTS	71,753	1.5%	71,563	1.6%	71,406	1.6%	71,248	1.6%	71,492	1.6%	-0.2
BUILDINGS	882,021	18.8%	879,317	19.6%	886,897	19.8%	877,119	20.1%	881,338	19.6%	-0.1
PLANTATION	442,845	9.5%	485,535	10.8%	530,096	11.8%	485,243	11.1%	485,930	10.8%	3.7
WORKING CAPITAL	1,056,355	22.6%	852,481	19.0%	810,112	18.1%	769,883	17.6%	872,207	19.4%	-9.5
MACHINERY AND EQUIPMENT	201,409	4.3%	208,399	4.7%	206,163	4.6%	174,234	4.0%	197,551	4.4%	-4.4
INVENTORIES	416,432	8.9%	352,124	7.9%	309,672	6.9%	340,898	7.8%	354,781	7.9%	-7.0
GROWING CROPS	32,995	0.7%	40,451	0.9%	36,809	0.8%	26,572	0.6%	34,207	0.8%	-7.2
LIVESTOCK	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	-
RECEIVABLES	322,560	6.9%	154,053	3.4%	194,207	4.3%	164,200	3.8%	208,755	4.6%	-16.4
SECURITIES	24,729	0.5%	24,729	0.6%	24,308	0.5%	24,256	0.6%	24,506	0.5%	-0.7
CASH AND BANK BALANCES	51,551	1.1%	72,724	1.6%	35,036	0.8%	39,723	0.9%	49,758	1.1%	-14.0
PREPAID EXPENSES	6,679	0.1%	0	0.0%	3,918	0.1%	0	0.0%	2,649	0.1%	-
LIABILITIES	4,681,409	100.0%	4,478,065	100.0%	4,482,679	100.0%	4,370,911	100.0%	4,503,266	100.0%	-2.0
EQUITY	4,140,550	88.4%	4,176,430	93.3%	4,174,075	93.1%	4,050,869	92.7%	4,135,481	91.8%	-0.7
EXTERNAL CAPITAL	540,860	11.6%	301,634	6.7%	308,604	6.9%	320,043	7.3%	367,785	8.2%	-14.4
RETIREMENT BENEFIT PLANS	8,618	0.2%	10,330	0.2%	13,811	0.3%	14,346	0.3%	11,776	0.3%	20.0
LOANS	229,672	4.9%	108,798	2.4%	102,663	2.3%	130,529	3.0%	142,915	3.2%	-16.1
PAYABLES	292,125	6.2%	176,743	3.9%	192,131	4.3%	172,781	4.0%	208,445	4.6%	-13.9
DEFERRED REVENUES	12,533	0.3%	4,940	0.1%	0	0.0%	2,387	0.1%	4,649	0.1%	-

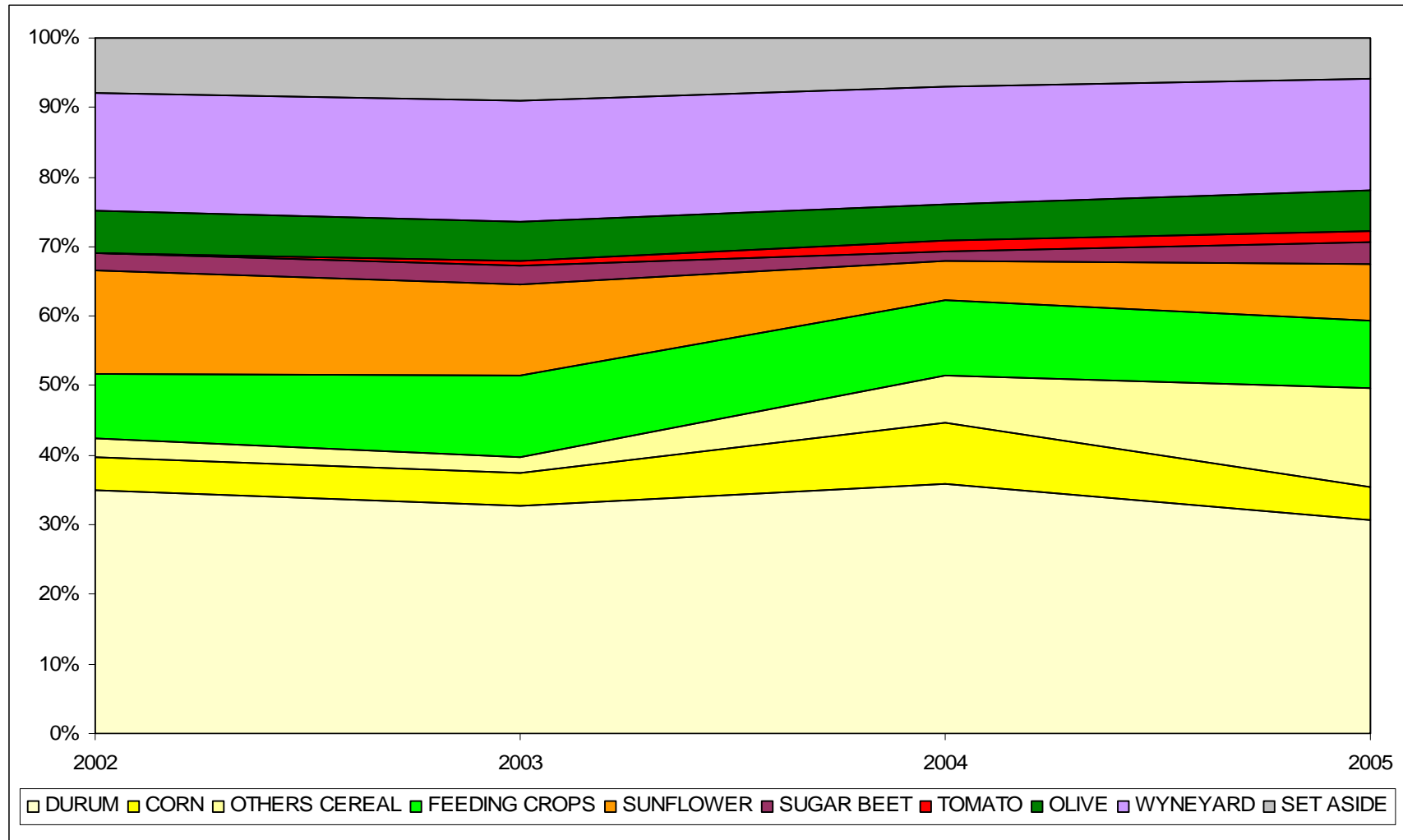
Source: Ufficio di Contabilità agraria - D.E.I.Agra. - Alma Mater Studiorum Università di Bologna

Graph 1.Crops ratio: Emilia- Romagna



Source: Ufficio di Contabilità agraria - D.E.I.Agra. - Alma Mater Studiorum Università di Bologna

Graph 2.Crops ratio: Tuscany



Source: Ufficio di Contabilità agraria - D.E.I.Agra. - Alma Mater Studiorum Università di Bologna

Table 8. Crop analysis per acre in Emilia-Romagna: Common wheat

Common Wheat						
Years	Average 94-01	2002	2003	2004	2005	Average 02-05
Production (t)	2.5	2.7	2.4	3.0	3.1	2.8
Hired labour employed (hours)	4.2	3.3	3.2	3.1	3.0	3.2
REVENUE	544	521	623	583	556	570
Product return	396	339	444	411	399	398
Other product return	15	23	20	22	28	23
Insurance income	5	-	-	1	1	0
EU payments	128	159	159	149	128	149
SPECIFIC COSTS	262	293	309	340	343	322
Fertilizer	41	41	43	47	47	44
Chemicals	12	22	17	27	26	23
Herbicide	16	21	20	26	22	22
Seed and plants	33	30	33	34	32	32
Miscellaneous	2	4	3	5	7	5
Crop insurance	2	3	2	2	3	3
Lease and machinery	114	130	149	157	164	150
Hired labour	42	42	42	42	40	41
Depreciation	-	-	-	-	-	-
GROSS MARGIN	282	228	313	242	212	249
OVERHEADS	132	125	138	146	136	136
NET OPERATING PROFIT	150	103	175	96	76	113

Source: Ufficio di Contabilità agraria - D.E.I.Agra. - Alma Mater Studiorum Università di Bologna

Table 9. Crop analysis per acre in Emilia-Romagna: Corn

Corn						
Years	Average 94-01	2002	2003	2004	2005	Average 02-05
Production (t)	4.0	3.9	3.5	4.2	4.1	3.9
Hired labour employed (hours)	8.1	5.4	5.4	5.1	5.3	5.3
REVENUE	745	695	741	679	634	687
Product return	549	506	535	494	507	510
Other product return	-	-	-	-	-	-
Insurance income	-	-	-	-	-	-
EU payments	196	189	206	185	128	177
SPECIFIC COSTS	444	462	432	457	501	463
Fertilizer	63	50	52	58	62	55
Chemicals	10	2	3	4	5	3
Herbicide	22	20	26	21	18	22
Seed and plants	53	63	67	66	64	65
Miscellaneous	19	68	39	54	66	57
Crop insurance	3	-	-	-	-	-
Lease and machinery	191	200	183	195	223	200
Hired labour	83	59	61	60	64	61
Depreciation	-	-	-	-	-	-
GROSS MARGIN	301	232	309	221	133	224
OVERHEADS	163	157	163	169	166	164
NET OPERATING PROFIT	138	76	146	52	32	60

Source: Ufficio di Contabilità agraria - D.E.I.Agra. - Alma Mater Studiorum Università di Bologna

Table 10. Crop analysis per acre in Emilia-Romagna: Sugar Beet

SugarBeet						
Years	Average 94-01	2002	2003	2004	2005	Average 02-05
Production (t)	21.0	23.7	18.9	20.4	23.4	21.6
Hired labour employed (hours)	8.4	5.7	5.7	5.4	5.4	5.5
REVENUE	1.050	985	957	1.186	1.155	1.071
Product return	1.009	949	938	1.159	992	1.009
Other product return	22	27	19	23	35	26
Insurance income	-	-	-	-	-	-
EU payments	19	9	-	4	128	35
SPECIFIC COSTS	566	590	619	615	697	630
Fertilizer	48	42	51	53	51	50
Chemicals	51	51	60	45	54	53
Herbicide	67	57	72	65	76	67
Seed and plants	78	95	93	89	87	91
Miscellaneous	16	35	13	22	47	29
Crop insurance	-	-	-	-	-	0
Lease and machinery	225	246	259	273	315	273
Hired labour	81	63	70	67	67	67
Depreciation	-	-	-	-	-	0
GROSS MARGIN	484	395	338	571	458	441
OVERHEADS	189	181	202	201	202	197
NET OPERATING PROFIT	295	214	136	371	256	244

Source: Ufficio di Contabilità agraria - D.E.I.Agra. - Alma Mater Studiorum Università di Bologna

Table 11. Crop analysis per acre in Emilia-Romagna: Soy bean

Soybean						
Years	Average 94-01	2002	2003	2004	2005	Average 02-05
Production (t)	1.4	1.6	1.5	1.4	1.9	1.6
Hired labour employed (hours)	5.2	4.3	3.9	3.8	3.7	3.9
REVENUE	584	524	552	434	562	518
Product return	301	362	407	272	434	369
Other product return	-	-	-	-	-	-
Insurance income	-	-	-	-	-	-
EU payments	283	162	145	162	128	149
SPECIFIC COSTS	285	300	262	276	310	287
Fertilizer	18	1	2	5	-	2
Chemicals	5	-	-	-	-	-
Herbicide	34	35	35	13	41	31
Seed and plants	32	34	23	23	30	27
Miscellaneous	3	18	4	23	12	14
Crop insurance	1	-	-	-	-	-
Lease and machinery	139	155	146	161	176	159
Hired labour	53	58	53	51	51	53
Depreciation	-	-	-	-	-	-
GROSS MARGIN	299	224	289	159	252	231
OVERHEADS	140	126	129	133	130	129
NET OPERATING PROFIT	159	98	161	25	122	101

Source: Ufficio di Contabilità agraria - D.E.I.Agra. - Alma Mater Studiorum Università di Bologna

Table 12. Crop analysis per acre in Tuscany: Durum

Durum						
Years	Average 94-01	2002	2003	2004	2005	Average 02-05
Production (t)	1.24	1.22	0.79	1.48	1.36	1.21
Hired labour employed (hours)	5.5	4.7	4.5	5.3	4.7	4.8
REVENUE	449	441	382	405	359	397
Product return	205	202	166	208	199	193
Other product return	3	5	4	1	1	3
Insurance income	0	0	0	0	0	0
EU payments	241	234	212	196	119	190
SPECIFIC COSTS	251	241	255	313	285	273
Fertilizer	43	42	65	51	55	53
Chemicals	2	3	0	5	4	3
Herbicide	18	18	10	26	14	17
Seed and plants	35	29	50	42	32	38
Miscellaneous	1	0	2	1	0	1
Crop insurance	1	0	0	0	0	0
Lease and machinery	102	91	79	120	110	100
Hired labour	50	58	49	60	63	57
Depreciation	0	0	0	0	0	0
GROSS MARGIN	198	201	127	92	73	123
OVERHEADS	78	69	68	80	61	70
NET OPERATING PROFIT	120	131	59	12	12	54

Source: Ufficio di Contabilità agraria - D.E.I.Agra. - Alma Mater Studiorum Università di Bologna

Table 13. Crop analysis per acre in Tuscany: Sunflower

Sunflower						
Years	Average 94-01	2002	2003	2004	2005	Average 02-05
Production (t)	0.6	0.9	0.8	0.7	1.1	0.9
Hired labour employed (hours)	5.2	4.7	4.6	4.3	4.5	4.5
REVENUE	338	310	243	211	379	286
Product return	113	198	142	118	227	171
Other product return	0	0	0	0	0	0
Insurance income	0	0	0	0	0	0
EU payments	225	113	101	93	119	107
SPECIFIC COSTS	207	192	198	178	216	196
Fertilizer	35	27	25	16	31	25
Chemicals	2	0	0	2	0	1
Herbicide	15	15	23	23	23	21
Seed and plants	17	18	20	13	20	18
Miscellaneous	1	0	2	0	0	0
Crop insurance	0	0	0	0	0	0
Lease and machinery	90	90	88	85	100	91
Hired labour	47	41	40	38	42	40
Depreciation	0	0	0	0	0	0
GROSS MARGIN	131	119	45	33	163	90
OVERHEADS	82	64	50	51	46	53
NET OPERATING PROFIT	50	55	-5	-18	117	37

Source: Ufficio di Contabilità agraria - D.E.I.Agra. - Alma Mater Studiorum Università di Bologna

Table 14. Crop analysis per acre in Tuscany: Olive

Olive						
Years	Average 94-01	2002	2003	2004	2005	Average 02-05
Production (t)	7.3	7.6	2.2	5.7	8.2	5.9
Hired labour employed (hours)	45.6	56.3	39.0	52.7	58.9	51.7
REVENUE	706	786	386	629	634	609
Product return	523	587	198	515	495	449
Other product return	32	0	0	28	0	7
Insurance income	2	84	0	0	49	33
EU payments	149	115	188	85	91	120
SPECIFIC COSTS	525	721	475	700	817	678
Fertilizer	14	47	45	46	62	50
Chemicals	7	9	10	10	13	11
Herbicide	1	0	0	0	0	0
Seed and plants	0	2	0	0	0	0
Miscellaneous	23	21	8	27	33	22
Crop insurance	1	19	0	0	0	5
Lease and machinery	86	130	70	154	180	133
Hired labour	370	480	315	437	518	437
Depreciation	24	15	27	27	11	20
GROSS MARGIN	180	64	-89	-71	-183	-69
OVERHEADS	136	157	111	153	150	143
NET OPERATING PROFIT	44	-93	-199	-224	-333	-212

Source: Ufficio di Contabilità agraria - D.E.I.Agra. - Alma Mater Studiorum Università di Bologna

Table 15. Crop analysis per acre in Tuscany: Grapes

Grapes						
Years	Average 94-01	2002	2003	2004	2005	Average 02-05
Production (t)	2.8	1.4	1.1	1.8	1.8	1.5
Hired labour employed (hours)	87.5	89.4	78.9	87.3	97.5	88.3
REVENUE	1,820	1,374	1,339	1,126	926	1,191
Product return	1,644	1,249	1,218	1,036	872	1,094
Other product return	0	1	2	1	6	3
Insurance income	11	0	0	0	1	0
EU payments	165	124	119	88	46	95
SPECIFIC COSTS	1,203	1,228	1,088	1,244	1,477	1,259
Fertilizer	44	27	31	41	34	33
Chemicals	111	94	81	69	103	87
Herbicide	11	1	0	0	4	1
Seed and plants	0	1	0	0	0	0
Miscellaneous	33	30	60	58	13	40
Crop insurance	16	11	8	13	8	10
Lease and machinery	192	179	149	179	288	199
Hired labour	752	752	638	750	888	757
Depreciation	44	132	122	133	139	132
GROSS MARGIN	616	146	251	-118	-551	-68
OVERHEADS	257	250	230	254	260	249
NET OPERATING PROFIT	359	-104	21	-372	-811	-317

Source: Ufficio di Contabilità agraria - D.E.I.Agra. - Alma Mater Studiorum Università di Bologna

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