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Sans, P. and de Fontguyon, G. ( 2009) *Veal calf industry economics*.  
Revue de Médecine Vétérinaire, 160 (8-9). pp. 420-424. ISSN  
0035-1555

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# Veal calf industry economics

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Cet article a fait l'objet d'une communication au 4<sup>ème</sup> "Dairy Solutions Symposium" les 25 et 26 septembre 2008, Lasalle Beauvais, FRANCE.

## SUMMARY

This paper provides an outline of the veal industry, its standing relative to other cattle farming enterprises, and its future prospects. In 2008 some 20 per cent of bovines slaughtered in the EU were for veal production and about one-third of them were dairy calves. France, the Netherlands and Italy were Europe's leading producers. Veal consumption in the European Union has been in steady decline since 1970. In 2008, it averaged 1.6 kg per capita, with France and Italy being the largest consumers. Despite variations in farming systems and carcass characteristics from one country to another, veal production is an important outlet for milk replacer producers and provides a market for their industrial dairy products. Regular changes in production factors such as the price of 8-day-old calves and milk replacers and their availability engender recurrent output fluctuations. Veal calf production plays a major part in regulating the milk and bovine-meat markets: it has largely contributed to stemming dairy (and sometimes meat) surpluses. However, the context has changed since 2008 with no more surplus milk supply and reduced EU-support for incorporating skimmed milk powder into milk feeds. Therefore, the relative attractiveness of other productions using 8-day-old calves and the support policies for cattle farming as a whole will affect the future of the veal calf industry.

**Keywords:** Veal, supply chain, Europe, economics.

## RÉSUMÉ

### L'économie de la filière veau de boucherie

L'article présente les principales caractéristiques du secteur du veau de boucherie dit « industriel », sa place relative dans les productions bovines et ses perspectives d'avenir. En 2008, la production de veau de boucherie représentait 20 % des abattages de bovins abattus dans l'Union Européenne et concernait plus du tiers des veaux issus du troupeau laitier. Elle était concentrée essentiellement dans 3 pays (France, Pays-Bas et Italie). Côté demande, la consommation dans l'Union Européenne s'élevait en 2008 à 1,6 kg/hab/an, la France et l'Italie étant les principaux pays consommateurs. Elle est en déclin régulier depuis 1970. En dépit de variations dans les systèmes d'élevages et les caractéristiques des carcasses produites dans les différents pays, la production était largement intégrée par des fabricants d'aliments de substitution au lait : elle constituait un marché pour les produits laitiers industriels que ces derniers fabriquent. Les variations fréquentes des facteurs de production (prix et disponibilité des veaux de 8 jours ou de la poudre de lait) sont responsables de fluctuations récurrentes des volumes produits. Le secteur du veau de boucherie joue un rôle majeur dans la régulation des marchés du lait et de la viande bovine : il a largement contribué à la résorption des excédents de lait (et parfois de viande). Cependant, depuis 2008, le contexte a changé (absence d'excédent laitier, soutien financier à l'incorporation de poudre de lait dans les aliments de substitution en baisse...). Aussi, l'attractivité relative des autres productions utilisant les veaux de 8 jours et les politiques de soutien à l'ensemble de l'élevage bovin influenceront sur le futur du secteur du veau de boucherie.

**Mots clés :** Veau de boucherie, filière, Europe, économie.

## Introduction

Veal production in Europe comprises two subsystems with separate characteristics: the first, often referred to as industrial veal is a major outlet for dairy or cross-breed calves fed mostly on milk replacers. Since the introduction of the regulation laying down minimum standards for the protection of calves [4], they have to be raised in groups from the age of 8 weeks: food is distributed manually in buckets (pens of 2–5 calves) or by automatic milk distributors (pens of 15–70 calves). The second subsystem, referred to as *veau sous la mère*, is a way of enhancing the value of calves of suckler breeds (mostly Limousine, Blonde d'Aquitaine and Bazadaise) that suckle their mothers at will twice daily. This production accounts for less than 10 per cent of calves slaughtered in France and is located principally in the southwest of the country.

This paper covers the first of these two subsystems only, which is by far the largest in Europe. The veal industry is specific in more than one way: producing white meat from ruminants as it does, its organisational model sets it apart

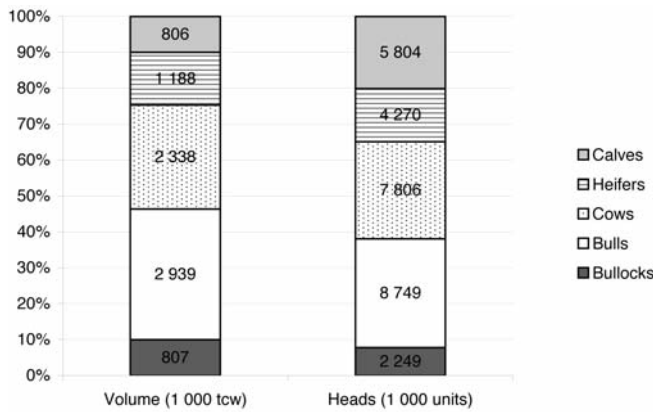
from other bovine enterprises. Although no longer widespread - just 7 500 of the 220 000 commercial cattle farms in France - the sector plays a major role in regulating the milk and bovine-meat markets. This paper provides an outline of the industry, its standing relative to other cattle farming enterprises, and its future prospects.

## How does veal compare with beef farming generally?

Herd surveys in each of the EU member states collated by Eurostat put current EU-27 calving figures at 32 million head. Since Bulgaria and Romania joined the EU in 2007 the availability of bobby calves (or 8-day-old calves) on the European market is now equal to the year's births, that is, supply is dependent on EU member state production alone (no imports or exports).

In 2008 European veal-calf production<sup>1</sup> (equal to slaughtering figures) stood at 5.8 million head for production of

806 000 tonnes carcass weight (tcw), including 781 000 tcw for EU-15 alone (Figure 1).



Calves: see footnote

Heifers: Female bovines aged two years or more that have not yet calved.

Cows: Female bovines that have calved (including any aged less than two years).

Bullocks: Male bovine under 2 years

Bulls: Adult male bovines

FIGURE 1: Cattle slaughtering (volume and head) EU-27 in 2008 (Source: after Eurostat data).

Veal calves accounted for 20 per cent of bovines slaughtered in the EU and about one-third of the dairy calf herd. Male calves made up a large proportion of output (about three-quarters) and more than four out of 10 male calves from the dairy herd went towards veal production.

The ‘veal calf’ category includes animals for which farming systems and carcass characteristics differ. Schematically, calves in France, Italy, Belgium and Germany are fed essentially on milk and milk products and slaughtered before the age of eight months. In some countries (Spain and Denmark especially), calves are fed almost exclusively on cereals and are only sent for slaughter after the age of 10 months. The Netherlands produce mostly ‘white veal’ (milk-fed) but also ‘rosé veal’ (cereal-fed and slaughtered older) [5].

The new labelling rules that came into force on 1 July 2008 clarified this situation: on the main consumer markets in the EU, meat from both production systems had until then generally been marketed under a single sales description: ‘veal’. As a rule, no reference was made to the type of feed received by the animals or their age at the time of slaughter. The differentiation criterion was limited, then, to the colour of the meat, which becomes pinker as the animal ages. This practice could have caused confusion for consumers because it was likely to mislead them as to the actual characteristics of the product they were buying. In June 2007 the Agriculture Council therefore adopted the Commission proposal of establishing sales descriptions to be used in each Member State for the marketing of the meat of animals in the categories 0–8 months and 8–12 months. From July 2008, and except for the meat still protected by a European designation [3]:

- for meat in the first category, the sales description is ‘veal’;
- for the second category, the description differs among countries (‘beef’ in the United Kingdom, ‘rosé veal’ in Ireland, ‘jeune bovin’ in France).

## Consumption influenced primarily by relative prices

In 2008, veal consumption in the European Union stood at 1.6 kg per capita per year with the largest consumers being France (4.1 kg per capita per year) and Italy (3.5 kg per capita per year) (Figure 2) [6].

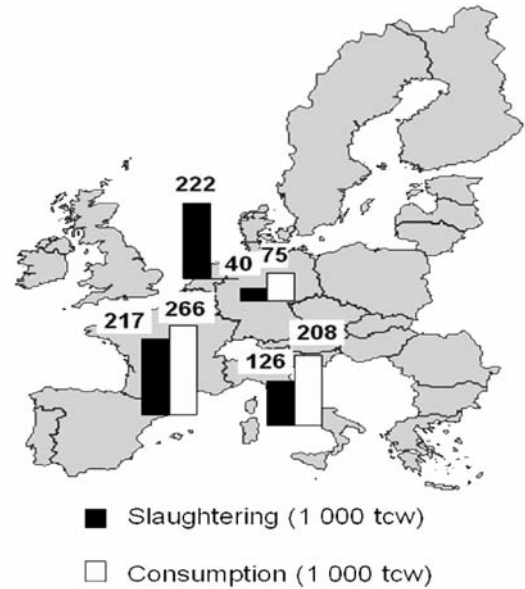


FIGURE 2: Leading countries for veal production and consumption in the European Union (2008) (Source: after SSP, Customs and PVE data).

Although the French remain the leading consumers of veal, the apparent aggregate consumption (total slaughter + meat imports - meat exports) has been in steady decline since 1970 (Figure 3).

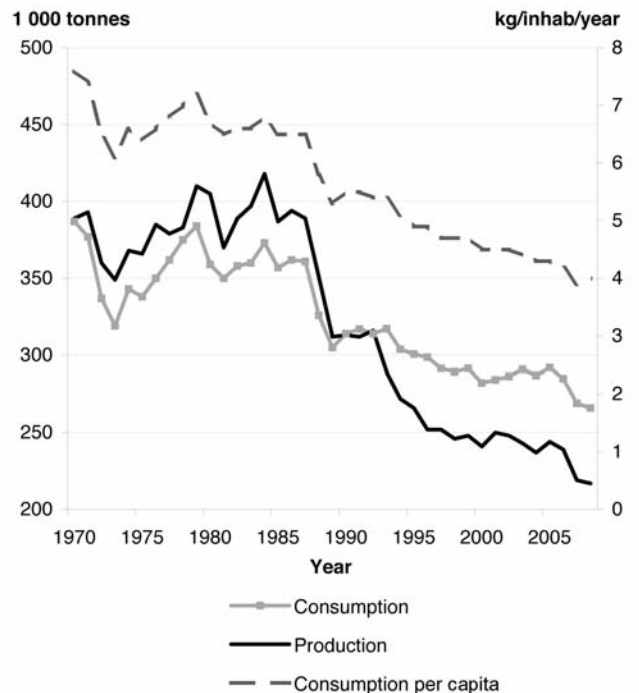


FIGURE 3: Changes in veal production and consumption in France (1970–2008) (Source: after SCEES data).

At the start of the period, the main explanation was a change in preferences due to the deterioration of the image of veal among consumers [2] and materialised in 1980 by boycott instructions from the *Union Fédérale des Consommateurs*. From 1985 onwards, the relative retail price of veal rose sharply: the introduction of milk quotas meant fewer bobby calves were available for fattening and milk powder was scarcer; quotas caused a rise in production costs, which was exacerbated by the ban on hormones. Since that time, veal has been one of the most expensive meats and generally has regularly lost market share compared to other, more attractively priced, white meats (e.g. chicken, turkey): for example, household purchases slumped in 2008 with the onset of the economic crisis, (6.4% down on 2007 figures, versus a 3.7% fall for meat generally, according to the TNS panel). Fresh veal remained the dearest meat in 2008, its average price rising by 5.2% compared with 2007.

Nevertheless, the decline in veal purchases evolved differently depending on the age of households: from 1995 to 2005 it affected the under 35 age group above all but was not apparent in the 55 and older age group.

Firms	Nature of capital	Comments
VanDrie (Integrator and slaughterer)	Private - Netherlands (Subsidiaries in France)	Europe's leading producer and slaughterer 1.4 million calves slaughtered per year (slightly more than 20% of European consumption). – Netherlands: 2/3 of slaughtering, 35–40% of feed production – France: 150 000 calves slaughtered per year
Tendriade (Integrator and slaughterer)	Private - France (Lactalis, Europe's leading milk group)	200 000 calves per year in France
Denkavit (Non-slaughtering integrator)	Private - Netherlands (subsidiaries in France, Germany, Italy)	Europe's second largest producer - 160 000 calves per year in the Netherlands - 200 000 calves per year in France
Bigard (Non-integrating slaughterer)	Private -France	France's leading calf slaughterer (since merging with Socopa) between 350 000 and 390 000 calves slaughtered per year

TABLE I: Europe's leading veal calf groups (Source: authors).

characterised by a structural downturn in the mid 1980s: the number of calves slaughtered in France was almost halved between 1984 and 2008, with production falling from 400 000 tcw to less than 250 000 tcw (Figure 3). This situation can be explained by the fall in calf numbers from the dairy herd (reduction of the herd after milk quotas were introduced, development of young bull production), and the rise in the prices of production factors (bobby calves, milk feed). Given the integrated character of the sector, these input cost variations engender production fluctuations from year to year: when bobby calves are rare (and so expensive) (Figure 4) or milk powder prices surge (Figure 5), integrators reduce the number of calves distributed for fattening, which leads to less slaughtering 4 to 6 months later.

When constraints on production factor prices are relaxed, more calves are farmed out for fattening and production picks up again. This regulation of supply by integrators with the profitability of speculation has induced effects on the price of fattened calves (higher when the product is rare). In this context carcass weights have increased markedly (from 125 kg in 1996 to 138 kg in 2008 for France).

## Largely integrated production that is highly sensitive to input costs

The calf-meat sector is the main outlet for what are known as 'eight-day-old' calves from the dairy herd. They are sold by the dairy farmer at an age between eight days and three weeks to an integrator who, after allotment, distributes them among fattening farms. The integrator provides these farms with the livestock, the milk feed, and technical and health back-up, and pays them for the fattening service for these 'industrial' veal calves. The main Dutch or French integrating firms are companies that produce milk feeds (from skimmed milk power and/or whey) and find an opening for their industrial dairy products in the veal calf industry. Some of them are involved at all stages in the industry by investing in slaughtering and processing so as to maintain tighter control over costs (Table 1).

As with consumption, this production concerns just a few countries in Europe (France, the Netherlands, Italy). It was

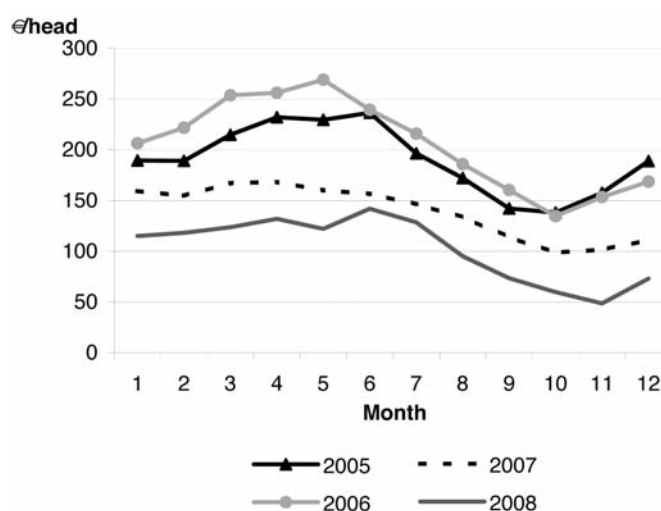


FIGURE 4: Eight day-old calf prices for veal production (2005–2008) (Source: after Office de l'Élevage data).



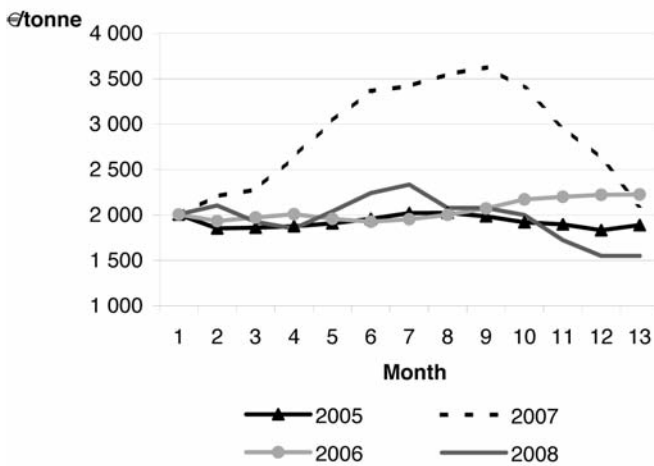


FIGURE 5: Skimmed milk powder prices used in animal feed in France (2003–2008) (Source: after Office de l’Elevage data).

## What future for the veal calf sector?

Veal calf production plays a major regulating role in the milk and meat industries: it can be used to adjust red meat production, especially in the event of an acute consumption crisis. In addition, because of Community support policy for the denaturation of milk (skimmed milk powder manufacturing) and its inclusion in feeds, this output has largely contributed to stemming dairy surpluses.

Without claiming these regulating roles have disappeared, the context has changed: milk supply is no longer in excess and farmers hold on to female calves; the improvement of milk cracking techniques provides prospects for more profitable use of milk proteins in human nutrition than in animal feeds (Figure 6); support for incorporating skimmed milk powder in milk feeds has been scrapped and the slaughter premium decoupled; young people are abandoning veal.

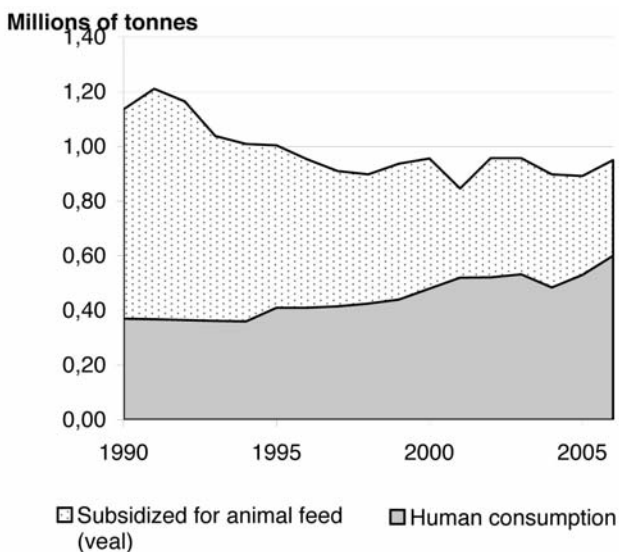


FIGURE 6: Use of skimmed milk powder in the European Union\* (1990–2006) (Source: after Eurostat data).  
\* EU-25 since 2004

Is the sector facing inevitable decline? Any answer should be carefully considered as several factors plead in favour of its continuation:

- in terms of consumption, veal has unquestionable nutritional qualities that could be made better use of. Meat proteins are rich in essential amino acids. Veal is a lean meat (less than 5–10% lipids before cooking, depending on cuts) and its lipids are mostly unsaturated fatty acids (60 per cent of total fatty acids). It is also rich in zinc that can be easily assimilated and in vitamins B12 and B3. Moreover, the recent development of processed products is liable to slow the decline in veal consumption by attracting young households in particular.

- as for production, it is backed by a reactive organisation and a renewed calf housing stock after compliance with standards on farming practices [4]. While it is likely the number of calves produced will continue to fall (reduction in the dairy herd, females kept for renewal should quotas be abolished, decline in numerical productivity of dairy farms), slightly heavier carcasses may yet offset some of this loss. To relax the constraint of the number of calves available, reduction in the death rate of calves is an important factor: a study in Brittany (France) of 765 000 dairy calves put the death rate of calves between 0 and 60 days at 11.3 per cent (two-thirds of them dying before they were two days old) [1]. Some 79 per cent of calf deaths were attributable to the consequences of calving and of diarrhoea. Each percentage point gained on the death rate would mean 42 000 extra calves available in the EU.

Moreover, the relative attractiveness of other productions using bobby calves (young bulls for meat, meat heifers) and the support policies for the whole of cattle farming will affect the future of the industry. Lastly, emergent diseases that disrupt intra-community trade also play an important role: by the end of 2008, blue tongue had spread throughout much of the EU and intra-community exchanges had fallen by 20 per cent for 8-day-old calves as well as for older and heavier ones. Exporting countries had difficulties selling their animals.

## Conclusion

Since the mid-1980s the veal industry has had to cope with far-reaching changes often instigated at European level: challenges to farming methods required fattening structures and feeding techniques to be adapted, giving rise to new animal health concerns. This restructuring was carried out in an economic context in which production costs in livestock farming continued to be affected by the often highly fluctuating markets for milk powder and 8-day-old calves. The veal industry played a major role in balancing the dairy and bovine meat markets. Its significance in Europe should not, then, be judged solely in terms of its output volumes.

We have shown that this livestock speculation was closely tied in with the uneasy balance between structurally declining consumption and production that was largely contingent on integrator choices, based on the profitability of their business.

The industry's future will hinge on its capacity to properly compensate each link in the chain within a changing context (redistribution of CAP support, abolition of milk quotas, health impediments to trade, etc.). The modernisation of farms, the development of elaborate products and the clarification of regulations as to the commercial designation of veal are undeniably assets... but the game is not won yet!

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- <sup>1</sup> *In community nomenclature (Eurostat) a calf is a bovine animal of live weight less than 300 kg and that has not yet got permanent teeth.*