



Institute of Services for the Agricultural Food Market

Production costs of beef cattle

Monitoring and methodology



2 March 2023

Reference framework

*The Institute of Services for the Agricultural and Food Market (ISMEA) is responsible for the monitoring of production costs of agricultural and livestock products according to national and EU regulations. In particular, *Legislative Decree No 198 of 8 November 2021 implementing Directive (EU) 2019/633 of the European Parliament and of the Council of 17 April 2019 on “unfair trading practices in business-to-business relationships” in the agricultural and food supply chain and Article 7 of Law No 53 of 22 April 2021 on the marketing of agricultural products and foodstuffs.**

ISMEA's monitoring of production costs is based on 3 independent and interlinked activities:

1. A network for the collection of producer and wholesale prices of agricultural and livestock products (since 2002 ISMEA's collection networks have been certified by **UNI EN ISO 9001: 2015** standard. The measurements are carried out on a weekly basis for 200 agricultural products recorded at 290 points distributed throughout Italy)
2. A network for the collection of farm input prices (on a weekly/monthly basis with its own network in the national territory)
3. Direct surveys on representative farms of national production, which consists in a specific questionnaire for data collection (on an annual basis).

Methodology - 1

Sampling

- The collection of data requires the statistical identification of **farm clusters** on the basis of census data from ISTAT and the National Livestock Register. Each cluster shall be identified on the basis of: geographical location, breed/genotype, holding size.

Cluster	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5
Regione	Veneto	Veneto	Veneto	Piemonte	Piemonte
Razza	Charolaise	Charolaise	Limousine	Garonesi	Garonesi
Dimensione	<500 posti	>500 posti	>500 posti	<250 posti	>250 posti

- For the monitoring of beef cattle production costs, **the unit of analysis** considered is the '**batch**', defined as a **group of calves**, homogeneous by sex, breed/genetic type, incoming /outgoing weight and feed.

Methodology – 2

Calculation of costs of production

According to the annual technical data and accounting data collected through the financial statement of a sample of 30 fattening farms, an integration method has been put in place to provide quarterly monitoring of the costs related to calves sold during the year, detailed by breed, sex and holding size.

1. Annual survey per holding

(achieved on average every three years):

- **Fuels,**
- **Bedding materials**
- **Medicines**
- **Labour**, including family and advent
- **Other costs** (insurance, maintenance, livestock consumables, water, consultancy/certification, membership fees, roasting, utilities, accountancy and stationery, Accounting and other general expences
- **Depreciation of** buildings, machinery and equipment
- **Interest** on capital

2. Quarterly reporting by batch:

technical parameters of the fattening cycle:

- Days in stables
- Input weight
- Weight at removal
- Mortality and morbidity rate
- Average daily increment
- **windfall cost**, i.e. expenditure actually incurred for the purchase of livestock;
- **feeding cost**, daily feed rations multiplied by the average Ismea prices collected through the network.

Average daily consumption per head

Cost of the daily ration per head

SEZIONE 1: DATI ALLEVAMENTO

Azienda

Forma Giuridica Partita IVA

Indirizzo

Razza/T. Genetico Sesso Stabulazione

SEZIONE 2: ENTRATA CAPI

[aggiungi entrata] [elimina ultima entrata] [aggiorna totali]

Entrata 1

N. Capi	21	Data [gg/mm/aaaa]	13/01/2023	Peso tot. pagato (kg)	8001	Costo totale €	23683
---------	----	-------------------	------------	-----------------------	------	----------------	-------

Peso capo medio pagato (kg/capo)	381	Costo medio ristallo (€/capo)	1127,76	Prezzo medio	2,96
----------------------------------	-----	-------------------------------	---------	--------------	------

Riepilogo entrate

Totale capi in entrata	21	Peso pagato (kg)	8001	Peso medio pagato per capo	381
------------------------	----	------------------	------	----------------------------	-----

Costo ristallo partita €	23683	Costo medio ristallo (€/capo)	1127,76	Costo medio ristallo (€/kg)	2,96
--------------------------	-------	-------------------------------	---------	-----------------------------	------

SEZIONE 3: USCITA CAPI

[aggiungi uscita] [elimina ultima uscita] [aggiorna totali]

Uscita 1

N. Capi	21	Data [gg/mm/aaaa]	27/07/2023	venduto sano	Peso effett.(kg)	13800	Ricavo tot.€	45600
---------	----	-------------------	------------	--------------	------------------	-------	--------------	-------

Peso medio di vendita (kg/capo) 657,1 Ricavo per capo (€/capo) 2171, Prezzo di vendita (€/kg) 3,3

Riepilogo uscite

Capi sani venduti	21	Capi macellati d'urgenza e morti		Capi in uscita media partita	21
-------------------	----	----------------------------------	--	------------------------------	----

RAZIONE ALIMENTARE riferita alla partita (Kg/capo/giorno)						
	Arrivo	Ingrasso	Finissaggio	Consumo medio per capo giornaliero (kg/capo/gg)	Prezzo (€/q.le)	Costo razione capo giornaliero (€/capo/gg)
Durata (giorni)		194				
Silomais		4,5		4,5	5,8	0,26
Pastone di mais		3,2		3,2	16	0,51
Insilato di loietto						
Insilato di <u>triticale</u>						
Insilato di prato						
Fieno di loietto						
Fieno di prato						
Paglia		1,2		1,2	8	0,1
Polpe bietola <u>essicate</u>		0,8		0,8	24,15	0,19
Melasso		0,4		0,4	22,9	0,09
Farina di mais		2,6		2,6	28	0,73

Farm Cluster – a monitored sample

The geographical and production structure

Cluster	Cluster 1	Cluster 2	Cluster 3	Cluster 4	Cluster 5
Region	Veneto	Veneto	Veneto	Piedmont	Piedmont
Race	Charolaise	Charolaise	Limousine	Garonnesi	Garonnesi
Dimension	< 500 places	> 500 places	> 500 places	< 250 places	> 250 places

COSTO DI PRODUZIONE PER CLUSTER DI AZIENDE						
Regione	Razza allevata	Dimensione aziendale	Tipologia allevamento	Costi diretti (€/Kg p.v.) 2022_Trim2	Costi Totali (€/Kg p.v.) 2022_Trim2	Link
Veneto	Charolaise		A ciclo aperto	2,75	2,87	Dati completi
Veneto	Charolaise	>550 capi	A ciclo aperto	2,73	2,84	Dati completi
Veneto	Limousine		A ciclo aperto	2,99	3,14	Dati completi
Veneto	Limousine	>550 capi	A ciclo aperto	2,92	3,04	Dati completi
Piemonte	Garronese		A ciclo aperto	3,39	3,58	Dati completi
Piemonte	Garronese	>250 capi	A ciclo aperto	3,30	3,44	Dati completi

Total costs €/Kg live weight

Results – VENETO

Synthetic description of the cluster

<https://www.ismeamercati.it/flex/cm/pages/ServeBLOB.php/L/IT/IDPagina/12028>

Charolaise, oltre 550 capi

Descrizione cluster

Dimensione	>550 capi
Tipo di allevamento	Ciclo aperto
Razza allevata	Charolaise
Zona altimetrica	Pianura
Manodopera	Familiare e impiegati

CLUSTER

- Region Veneto - North Italy
- Big farm (>550 heads)
- Fattening
- Breed Charolaise
- Family and wage labour

Results – VENETO

Description of technical parameters

Parametri tecnici

Incoming average
weight per head

Peso Ristallo
(kg/capo)

	2021_Trim2	2021_Trim3	2021_Trim4	2022_Trim1	2022_Trim2
Peso Ristallo (kg/capo)	422,9	424,9	420,2	429,1	422,1

Outgoing average
weight per head

Peso medio capo
in uscita
(Kg/capo)

	2021_Trim2	2021_Trim3	2021_Trim4	2022_Trim1	2022_Trim2
Peso medio capo in uscita (Kg/capo)	713,3	711,1	708,3	709,4	707,3

Number of days
spent on farm

gg presenza in
allevamento

	2021_Trim2	2021_Trim3	2021_Trim4	2022_Trim1	2022_Trim2
gg presenza in allevamento	197,7	194,5	194,7	192,4	196,4

Average daily
growth per head

Accrescimento
kg/capo/gg

	2021_Trim2	2021_Trim3	2021_Trim4	2022_Trim1	2022_Trim2
Accrescimento kg/capo/gg	1,47	1,47	1,48	1,46	1,45

Mortality rate

Mortalità

	2021_Trim2	2021_Trim3	2021_Trim4	2022_Trim1	2022_Trim2
Mortalità	0,97	0,52	0,43	1,37	1,36

Morbidity rate

Morbilità

	2021_Trim2	2021_Trim3	2021_Trim4	2022_Trim1	2022_Trim2
Morbilità	0,60	1,26	1,15	0,65	0,66

Results – VENETO

Large farms – Charolaise breed

Total costs €/Kg live weight

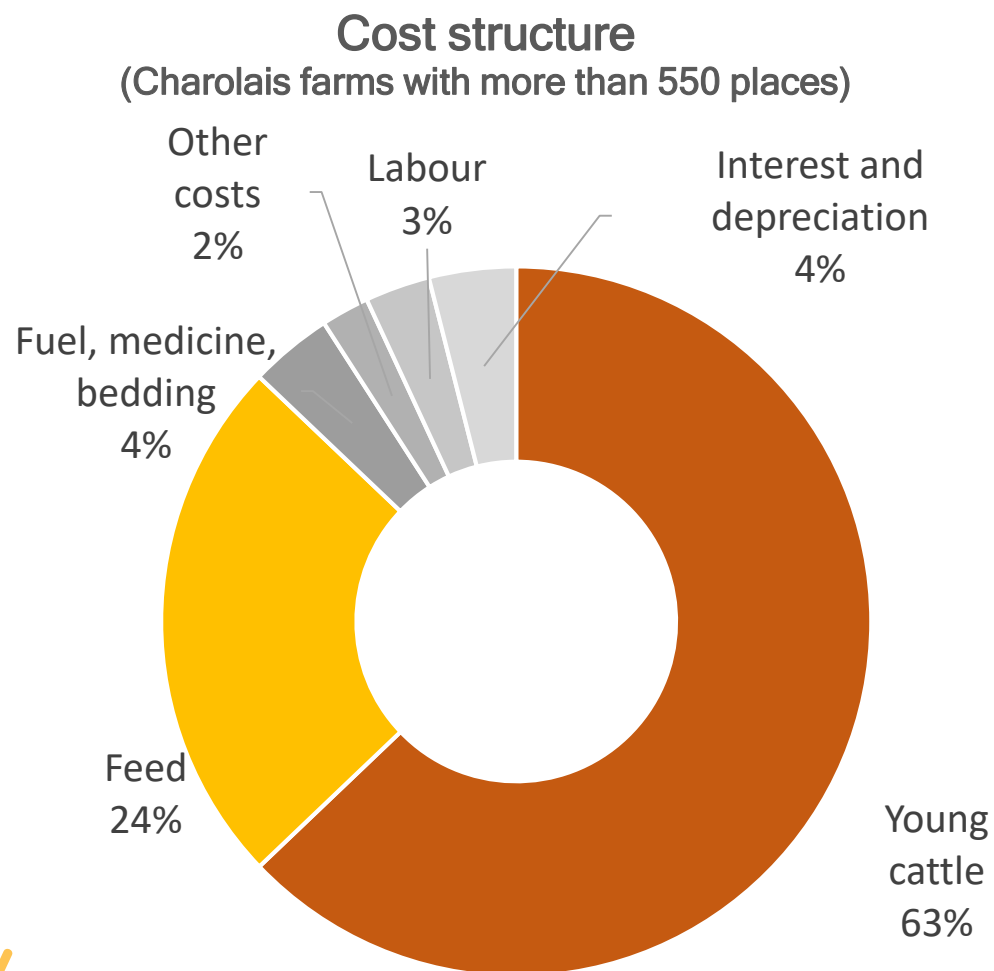
Costi di produzione della carne bovina - euro/kg p.v.

	2021_Trim2	2021_Trim3	2021_Trim4	2022_Trim1	2022_Trim2
Young male cattle					
Feed					
Fuels, bedding materials and medicines					
Other costs					
Labour					
Interests and depreciation of buildings and machinery					
Ristallo	1,54	1,53	1,64	1,68	1,74
Alimentazione	0,57	0,61	0,69	0,70	0,75
Carbur./lettiere/medicinali	0,09	0,09	0,10	0,11	0,11
Altri costi	0,06	0,05	0,06	0,05	0,06
Totale Costi Variabili	2,26	2,29	2,49	2,55	2,66
Lavoro	0,07	0,07	0,07	0,07	0,08
Costi diretti	2,34	2,36	2,56	2,62	2,73
Interessi e ammortamenti	0,10	0,10	0,10	0,10	0,11
Media di Costo Totale	2,44	2,46	2,67	2,73	2,84

(1) In altri costi sono comprese spese per assicurazioni, certificazioni, materiali d'uso per l'allevamento, acqua.

Input price increase and effects on production costs

Beef cattle farms cost structure and input price trends



- **Young cattle** are purchased at 10 months and fattened for 6/7 month and this is the main component of production costs. It accounts for **63%** of total costs.
- In 2020 and 2021 prices of young cattle were stable, while they showed an increase in the last two quarters, due to an increase in input and transport costs.
- **Feed costs** represent **24%** of the total costs, increased by **23%** in jan-jun 2022.
- In **fattening farms**, input prices increased by **15%** in jan-jun 2022.

Fonte: Ismea