

THE PRODUCTION OF CALVES FOR FATTENING AN ALTERNATIVE FOR MILK QUOTA!

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Abstracts

The maintenance of cattle population is conditioned by an opening production market. The milk quote that rules as a numerical increasing limitative factor can have the beef production as alternative solution. This paper presents both technological alternatives for fattening calves and genetic combinations between breeding and imported breeds.

Key words: milk quote, beef calves, fattening, genetic combinations

The national cattle population is around 1.5 mil. heads, ranked 7th out of the 27th UE-members countries. This production potential ought to be more efficiently assessed and carried out.

The milk quota of 3.3 mil. To, with the estimated growth, taking into account an average production of 4000 kg, can be fulfilled within around 800000 cows.

What strategy do we need for the remainder of cow population?

The alternative solution for the milk production is the beef production. The main source for fattening is the male calves, which accounts for 65-70% of the beef production, the remainder being produced by the young female calves and cows.

The present breed structure represents 65% dual-purpose breeds – Bălțată, Brună, Pinzgau and 35% milk breed – Friză type cows. This allows us to encourage the introduction of fattening calves technology,

considering the feeding resources, pedoclimatic conditions and manpower available.

The fattening calves production is carried out through two technological alternatives:

- In dairy farms – that breed dairy or dual-purpose cows – part of the cows population is inseminated by dual-purpose or beef breed and the obtained progeny are used for fattening.
- Suckling cows technology (nursing cows, beef cows, cow and calf operation or other names), in which no milking is required, the calves are kept along with their mothers, the milk production being harvested through suckling.

Basically any cattle breed (dairy, dual-purpose or beef breed) can be utilized for the production of fattening calves, assuming that the breeding and fattening technology are fulfilled to the breed's needs – Table 1.

Table 1. Production alternatives for fattening calves

Mother breed	Father breed	Type of carcass
Milk breed	Milk breed	White beef
	Dual -purpose – beef	Beef – 150 kg
Dual-purpose breed	Dual-purpose breed	Heavy carcass ~ 350 kg
	Beef breed	Heavy carcass ~ 350 kg
Beef breed	Beef breed	Heavy carcass ~ 350 kg

The structural cattle population analysis as breeding technology, among UE-25 members (without Romania and Bulgaria), shows that in 5 countries – France, United Kingdom, Ireland, Portugal, Spain – there are 6.35 mil. cows for milk production and 9.17 mil. cows for beef, which represents 144% in favor of fattening. In 20 countries there are 16.6 mil. cows for milk production versus 2.8 mil. beef cows, which account for 17% of the total population for suckling cows.

Each country utilizes the existing breed structure, adapted to the local pedoclimatical conditions. The introduction of another breed along with its new technology – is accepted as change and progress, but only with caution and to be based on measurable scientifically and technically analysis.

Synthesizing the results of slaughtering dual-purpose and milk breeds reveals that it can be obtained heavy carcasses with good commercial standing – Table 2.

Table 2. Slaughtering results – Bayer, 2005

Breed	Slaughterhouses, number	Animals number	Age, months	Carcass		
				Weight, kg	Net gain, g	Commercial
Fleckvieh	37	255046	18,9	385	667	3,64
Brună	29	17473	19,8	375	627	2,74
Pinzgau	17	50	21,1	368	587	3,02
Holstein	35	3396	20,7	352	562	2,05

Similarly, having the same breed in our country, under normal breeding conditions, the slaughtering results should be comparable.

Applying this analysis to beef progeny performance test, within dual-purpose and

beef breed, shows that the daily average gain can be similar among races but with some differences concerning the carcasses efficiency and commercial stand – Table 3.

Table 3.
 Performance results for progeny testing program – Germany, 2005

Breed	Slaughtering				Carcass	
	Age	Weight, kg	SMZ	Efficiency, %	Weight, kg	Commercial stand
Fleckvieh	510	644	1228	57,0	370	3,09
Fleckvieh beef	510	665	1287	58,0	378	3,38
Brună	450	566	1299	56,2	303	2,38
Angus	480	602	1254	58,1	341	3,60
Limousine	510	606	1298	63,0	376	4,30
Hereford	510	664	1443	57,0	364	2,83
Pinzgauer	450	592	1252	55,4	318	2,75

Results show that under normal housing and feeding conditions, each breed outcomes according to its genetic potential.

The alternative to switching from milk production to cow and calf operation is based on keeping the cow together with her calf, efficient use of the pasture, no-milking, and the entire milk production to be harvested by sucking calves.

Scientific researches shows that in this system is important to have an average-size breed cows as the most favorable solution for the extensive maintenance of the pasture under the conditions of valuable carcasses production. This technology implies exigence, testing programs in which is important both the calf's weight at weaning – 200 days, and the mother's nursing ability (calves production mother breed).

In our country, E. Silvaș, M. Roman, C. Podar and collaborators (1977) carried out researches concerning cow and calf production having as maternal breed Bălțată-Fleckvieh and as paternal breed Charolaise, Piemontaise, Romagnola, Chianina, Marchigiana, and in another research Angus.

Table 4. Dynamics of calf's bodyweight at 6 and 18 months

Group of hybrids	Bodyweight, kg		SMZ, g
	6 months	18 months	4-18
Romagnola x BR	182	478	834
Piemontaise x BR	205	489	810
Marchigiana x BR	161	395	696
Chianina x BR	177	441	775
Charolaise x BR	219	483	801
BR x BR	191	474	798

This technology appears simple but no simplistic, cause each time period has its technological importance and significance for each cattle category, young calves and fattening animals.

This is an alternative to milk quota, but

the final economical results are negative thus in need of subvention.

The testing results of the calves breed under this technology are shown as bellow, in 342 farms in Niederösterreich – Table 5.

Table 5

Breed	Sex	Animals number	200 days		365 days	
			Bodyweight	SMZ	Bodyweight	SMZ
Angus	M	107	266,8	1164	389,5	975
	F	180	252,6	1096	366,8	919
Blonda d'Aq	M	81	268,4	1092	451,4	1105
	F	90	243,6	997	394,8	966
Charolaise	M	191	276,1	1165	452,9	1121
	F	200	261,6	1104	387,3	944
Fleckvieh	M	596	290,7	1232	472,9	1175
	F	1300	263,2	1105	398,1	976
Galloway	M		205,2	864	328,6	811
	F		198,5	835	290,7	714
Limousine	M		266,5	1112	429,0	1055
	F		247,0	1034	359,7	878
Murbonder	M		269,6	1143	429,1	1063
	F		248,2	1047	370,5	914
Pinzgau	M		263,0	1097	462,0	1142
	F		248,5	1051	402,4	994
Blondvieh	M		264,5	1127	371,5	911
	F		226,6	954	328,1	804

It is noticeable the maintenance of some local breed, that under less favorable conditions for other breeds, realizes acceptable gain and production growth.

Concerning the use of BB – Blue Belgique – as paternal breed, we have the Hungarian based results. It reveals that for pure breed the calving is made trough cezarian, due to mother and calf's anatomically characteristics. For the cross-breed F1 females, the percentage for difficult calvings is similar to the ones for the maternal breeds.

The cross-breeding results for BB and Hungarian breeds such as Holstein Frisian, Lincoln Red, Hungarian Grey, Fleckvieh, shows that:

- Average daily gain increases by 5-8%.
- Slaughtering efficiency increases by 6,5-14,0%.
- Meat percentage increases by 20-27%.
- F1 females have a higher efficiency during fattening.

We caution about the cross-breeding with BB, taking into account the smaller size of the cows from the Romanian farms, and the use of an intensive breeding program for achieving results in fattening.

A summary for the results of the cross-breeding program in beef production is shown by the swiss researchers in the Tachete rouge magazine, 1995.

Father breed	Calving process	Net gain	Carcass value	Calves destination	
				Intensive	Extensive
Fleckvieh	xx	xx/xxx	xx/xxx	xxx	x
Blonda d'Aq	x/xx	xxx	xxx	xxx	-
Limousine	xx	xx/xxx	xx/xxx	xxx	xx
Charolaise	xx	xxx	xxx	xxx	x
Angus	xxx	xx	xx/xxx	xx	xxx
Brună	xx	xx	x/xx	xx	xx

The above data allows us to choose the optimal solution based on the calves use for a certain fattening process (extensive or intensive).

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