

Supplementary Table S1

Productivity and technical efficiency of suckler beef production systems: trends for the period 1990 to 2012

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Annual mean values of French beef cattle farms from FADN (type of farming 46), of the structural and economic variables for each year (from 1990 to 2012)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Utilized Agricultural Area, UAA ha	64	66	69	73	74	76	76	79	81	81	82	83	86	87	90	92	94	96	96	97	101	104	105
Main Forage Area, MFA ha	53	55	57	60	62	64	65	67	69	69	70	71	74	75	77	78	80	82	81	82	86	89	89
Livestock Units (LU)	1,40	1,40	1,30	1,30	1,30	1,30	1,30	1,30	1,30	1,40	1,40	1,40	1,30	1,30	1,30	1,30	1,30	1,30	1,30	1,30	1,30	1,30	1,20
Stocking rate LU/ha MFA	1,30	1,30	1,30	1,30	1,30	1,30	1,30	1,30	1,30	1,30	1,30	1,30	1,30	1,30	1,30	1,30	1,30	1,30	1,30	1,30	1,30	1,20	1,20
Cereal yield 100kg/ha	49	55	55	53	52	51	57	53	59	53	56	48	59	50	60	56	55	46	54	59	56	55	60
Annual Work Units, AWU	1,41	1,41	1,41	1,39	1,37	1,38	1,37	1,37	1,38	1,39	1,38	1,35	1,40	1,36	1,35	1,37	1,36	1,36	1,36	1,37	1,38	1,37	1,38
Farm Income €/AWU	10 198	9 064	14 262	18 305	21 468	17 397	15 037	18 693	18 394	16 898	15 261	15 458	20 860	19 250	19 133	17 635	21 141	14 167	8 596	7 771	11 725	12 537	16 180
Grain output k€ deflated PPAPI	2,19	2,51	2,54	1,77	2,02	2,24	2,74	2,56	2,67	2,41	2,59	1,89	2,54	1,81	2,50	2,75	2,69	2,34	2,19	2,85	3,59	2,94	4,10
Bovine output k€ deflated PPAPI	36,22	39,24	41,77	41,88	41,29	40,85	38,31	47,42	48,11	50,85	48,33	50,52	54,98	55,41	56,06	57,81	58,88	59,32	56,79	57,18	58,66	59,63	59,23
Output k€ deflated PPAPI	43,00	46,36	51,00	47,90	47,83	47,30	45,21	54,29	56,56	60,01	56,74	57,60	63,93	62,01	68,43	67,08	69,68	69,59	65,36	66,10	67,76	66,98	70,11
Output € deflated PPAPI/ha UAA	676	706	737	657	643	626	592	689	698	739	689	696	743	710	757	729	743	725	682	684	668	643	670
Output k€ deflated PPAPI/AWU	30,50	32,88	36,17	34,46	34,92	34,27	33,00	39,63	40,99	43,18	41,11	42,67	45,67	45,60	50,69	48,96	51,24	51,17	48,06	48,25	49,10	48,89	50,80
Intermediate consumptions (IC) k€ deflated PPMAPI	36,31	37,60	36,49	35,89	36,57	37,55	38,62	41,52	45,10	45,93	46,07	43,79	48,17	53,39	56,68	58,12	59,77	57,90	54,11	55,69	56,98	59,53	60,99
Fertilizers € deflated PPMAPI/ha UAA	108	104	92	86	77	78	81	89	88	89	79	64	69	73	77	69	67	61	37	47	47	43	49
Seeds € deflated PPMAPI/ha UAA	21	21	18	16	15	16	16	16	16	16	16	16	15	16	16	15	15	15	14	15	15	15	16
Pesticides € deflated PPMAPI/ha UAA	17	17	14	13	12	14	14	13	14	15	14	13	13	14	14	15	14	14	14	15	13	13	14
Feed € deflated PPMAPI/ha UAA	99	101	89	74	76	80	80	85	93	98	97	93	101	134	137	135	144	132	123	122	124	127	120
Veterinary € deflated PPMAPI/ha UAA	28	28	30	27	29	30	28	27	28	29	30	29	30	31	30	32	32	33	35	32	31	30	32
Energy (fuel, electricity) € deflated PPMAPI/ha UAA	35	37	33	31	30	30	30	31	32	32	36	38	35	35	37	40	41	41	44	43	40	41	44
Fournitures par hectare (€/ha)	13	18	15	14	14	15	16	18	19	18	20	19	18	21	25	21	23	26	22	23	24	27	29
Contract work € deflated PPMAPI/ha UAA	47	47	45	45	45	46	44	46	49	50	52	47	49	52	56	57	56	54	50	57	55	54	54
Machinery and building upkeep € deflated PPMAPI/ha UAA	34	35	38	41	43	39	41	44	42	45	42	42	44	44	45	43	42	41	38	43	43	41	45
Other direct inputs € deflated PPMAPI/ha UAA	119	116	108	105	110	108	113	114	132	129	130	125	145	150	148	164	164	149	149	142	131	138	139
IC € deflated PPMAPI/ha UAA	571	572	527	492	491	497	506	527	557	566	560	529	559	612	627	632	637	603	564	577	562	571	583
IC k€ deflated PPMAPI/AWU	25,75	26,67	25,88	25,82	26,69	27,21	28,19	30,31	32,68	33,04	33,39	32,44	34,41	39,26	41,98	42,43	43,95	42,57	39,78	40,65	41,29	43,45	44,20
Fixed capital consumption (FCC) k€ deflated PPMAPI	11,66	11,59	11,40	10,89	10,99	11,01	11,44	12,35	13,53	14,85	15,78	16,20	16,58	17,18	18,54	19,34	20,23	20,72	19,34	19,38	20,00	19,21	19,46
FCC € deflated PPMAPI/ha UAA	183	176	165	149	148	146	150	157	167	183	192	196	193	197	205	210	216	216	202	201	197	184	186
FCC k€ deflated PPMAPI/AWU	8,27	8,22	8,08	7,83	8,02	7,98	8,35	9,02	9,81	10,69	11,44	12,00	11,84	12,63	13,73	14,12	14,87	15,23	14,22	14,14	14,49	14,02	14,10
Value added k€ deflated PPAPI and PPMAPI	-4,97	-2,83	3,12	1,12	0,28	-1,26	-4,86	0,41	-2,07	-0,77	-5,12	-2,39	-0,82	-8,55	-6,78	-10,39	-10,31	-9,03	-8,08	-8,97	-9,22	-11,75	-10,35
Value added € deflated PPAPI and PPMAPI/ha UAA	-78	-43	45	15	4	-17	-64	5	-26	-10	-62	-29	-9	-98	-75	-113	-110	-94	-84	-93	-91	-113	-99
Value added k€ deflated PPAPI and PPMAPI/AWU	-3,52	-2,01	2,21	0,81	0,20	-0,91	-3,55	0,30	-1,50	-0,56	-3,71	-1,77	-0,58	-6,29	-5,02	-7,58	-7,58	-6,64	-5,94	-6,54	-6,68	-8,58	-7,50
Technical efficiency	0,90	0,94	1,07	1,02	1,01	0,97	0,90	1,01	0,96	0,99	0,92	0,96	0,99	0,88	0,91	0,87	0,87	0,89	0,89	0,88	0,88	0,85	0,87