



# Field Record Book

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## Kansas Beef Improvement Program

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Kansas State University  
Agricultural Experiment Station and  
Cooperative Extension Service

There is only one way to know what kind of progress you're making when breeding cattle, and that's by looking at the record. Records can help you do a better job of managing, feeding and breeding cattle.

For information about the beef cattle improvement programs, see your local K-State Research and Extension agriculture agent, your area livestock specialist or contact the beef cattle specialists at Kansas State University.

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## Feeding Tips

### General Information (Winter Feeding)

Feed cows to be in moderate to good condition at calving. Body condition scores at calving are related to pregnancy rate and days from calving to subsequent conception.

Feed best-quality forages to replacement breeding animals, cows in poor condition and during the calving season.

Feed young breeding stocks and thin cows separately from mature cow herd to assure meeting their higher nutrient requirement.

Provide free-choice salt and mineral supplement throughout the year and a vitamin A supplement during the winter, if necessary.

## Ration Guidelines

Dry, pregnant mature 1,100 lb. cows during the last third of pregnancy.

- 18 to 20 lbs. good quality prairie hay and 4 lbs. legume hay
- 45 lbs. corn or sorghum silage  
7 to 8 lbs. mixed hay
- 20 lbs. milo stover  
4 lbs. legume hay
- 16 lbs. wheat straw  
8 lbs. legume hay

Mature 1,050 to 1,100 lb. cows from lactation through rebreeding (10 lbs. milk/day)

- 25 to 26 lbs. legume hay
- 10 lbs. legume  
40 lbs. corn or sorghum silage
- 5 lbs. corn or milo  
full feed legume hay

Replacement heifer calves, from weaning until breeding.

- 25 lbs. corn or sorghum silage  
1 lb. legume hay/100 lbs. body weight
- 10 lbs. legume hay  
 $\frac{3}{4}$  to 1 lb. corn or milo/100 lbs. body weight
- 40 lbs. corn or sorghum silage  
1½ lbs. 32 percent protein supplement

Bulls 1,400 to 1,500 lbs. – 1½ lbs. gain

- 18 lbs. prairie hay  
8 to 10 lbs. legume hay  
4 lbs. corn or milo
- 60 to 65 lbs. corn or sorghum silage  
8 to 10 lbs. legume hay
- Dry Grass  
10 lbs. legume hay  
4 to 5 lbs. corn or milo

## **Mineral Supplements**

For rations containing mostly hay or pasture: dicalcium phosphate – 50%; trace mineral salt – 50%.

If grass tetany is a problem in your area, add equal parts of magnesium oxide to the salt mineral mix.

## **Management of Reproduction**

### **Management of Replacement Heifers**

Feed heifers to gain about 1½ to 2 pounds per day after they are weaned until they are bred. Heifer calves weaned at 7 to 8 months of age and fed to gain at this rate, will be ready to breed at 12 to 15 months of age. Medium-framed heifers should weigh 650 to 750 pounds at the start of the breeding season. Large, mature-sized heifers should

weigh 750 to 850 pounds.

Breed heifers to calve two to three weeks ahead of the cow herd.

Breed heifers for 45 days, pregnancy check and cull opens.

### **Selection and Management of Bulls**

Selection. Use EPDs, objective measurements and subjective evaluation to determine the proper bulls for your operation.

Yearling bulls can be used to breed 10 to 15 cows.

Mature bulls in good condition, without any physical defects, can be used to breed 40 cows in a 60-day breeding season. An accepted ratio in most situations would be one mature bull to 25 cows.

Conduct a breeding soundness examination on all bulls four to six weeks before the breeding season. Evaluate semen and reproductive soundness to detect sterile bulls and those with obviously low fertility or other physical defects that may impair a bull's ability to travel and serve females.

### **Shorten the Breeding Season**

Gradually shorten the breeding season each year until all calves are being born within 60 to 75 day period. Breeding season can be shortened by removing bulls a few days earlier and by culling open cows and heifers and those conceiving late in the breeding season yearly.

## **Pregnancy Checking**

Pregnancy check cows when calves are weaned and cull cows that are not safe in calf. It is too expensive to winter an open cow. Also, calves should be weighed at weaning. Consider developing, worming, grub control, vaccination and identification programs at the same time.

## **Performance Evaluation Tips**

Participate in a performance testing program. Use breed association sponsored programs. Note: Many Research and Extension agents have CHAPS or Nebraska PC cow card programs.

Permanently identify all animals in the herd. Weigh calves when they are between 160 and 250 days of age. Weigh yearlings when they

become between 330 and 400 days of age. Select replacement breeding animals with the highest 205 to 365-day weight ratios, provided they are structurally sound and not overly fat. Cull open and low-producing cows on the basis of pregnancy tests, weight ratios of their calves and soundness.

## **GENERAL SCORES AND CODES**

### **Codes Used to Record Body Condition Score (BCS)**

- 1) Emaciated. All bones apparent. Weak.
- 2) Similar to (1), but not physically weakened.
- 3) Very thin. No fat over ribs or in brisket; individual muscles in hindquarters easily discerned, spinal processes apparent.
- 4) Thin. Ribs and pins easily visible. Still see individual muscles in hindquarters.
- 5) Moderate. Less than 0.2 inches fat over ribs; last two or three ribs felt easily. No fat in brisket, 0.4 inches fat over pin bones.
- 6) Good. Smooth appearance, ribs not visible. Some fat in brisket.
- 7) Very good. Brisket is full, and fat is deposited over the pins and tail head. Indentation between additional fat deposits over the spinal cord.
- 8) Obese. Back very square, brisket distended with fat. Protruding deposits over tail head and pins. Thick neck, large indentation over spinal cord.
- 9) Very obese. Fat to an extreme.

### **Cull Cow Codes\***

- 1 – died
- 2 – sold, old age
- 3 – sold, physical defect
- 4 – sold, reproductive problems
- 5 – sold, inferior calves
- 6 – sold, replacement stock
- 7 – sold, unknown

\*Can be recorded in Remarks column

- Adapted from the CHAPS program

### **Calf Death Loss Codes\***

- Causes:
- 0 – predator
  - 1 – abortion
  - 2 – scours
  - 3 – pneumonia
  - 4 – white muscle

5 – enterotoxemia

6 – birth related

7 – accident

8 – cold stress

9 – other

### **Age at Death:**

1 – under 15 days

2 – 15 to 30 days

3 – 30 to working

4 – working to wean

Cause of death listed first, then age at death.

Example (22) would mean a calf died of scours between 15 and 30 days of age.

\*Calf Death Loss Codes could be recorded in Wn. Wt. Column

### **Calving Ease Score\***

Calving Eases (C.E.):

- 1 – No assistance, calf born normally
- 2 – Assisted, easy
- 3 – Assisted, very difficult
- 4 – Breech birth, abnormal presentation
- 5 – Caesarean delivery

### **Calf Vigor (V)**

- 1 – Nursed immediately, calf was healthy and strong at birth
- 2 – Nursed on its own, but took some time
- 3 – Required some assistance to suckle
- 4 – Died shortly after birth
- 5 – Dead on arrival

Calving ease scores in the calf records can be entered as individual numbers such as 1,2,3,

etc. Or, they can be combined with calf vigor values to be used similar to the calf death loss scores (e.g., 11= no assistance, nursed immediately).

### **Udder Scoring System (U.D./S.C.)\***

To identify udder characteristics related to labor and longevity; should not be used to predict milk production. Score cows within 24 hours of giving birth; record in calving book.

#### **Categories**

##### **Teat Size**

- 5 – Very small
- 4 – Small
- 3 – Intermediate
- 2 – Large
- 1 – Very large

##### **Suspension**

- 5 – Very tight
- 4 – Tight
- 3 – Intermediate
- 2 – Pendulous
- 1 – Very pendulous

\*Adapted from the American Polled Hereford Assoc.

## Gestation Measurement Table

To determine expected birth date of calf add 283 to the “day-number” of the date bred. To find the date on which a calf becomes 205 days of age, locate the “day-number” of its birth date. Add 205 and locate the date he becomes 205 days old. Follow the same procedure for yearling measures at 365 days or 350 days. The table applies to ordinary years only. For leap years, add one day after February 28.

Day of Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	1	32	60	91	121	152	182	213	244	274	305	335
2	2	33	61	92	122	153	183	214	245	275	306	336
3	3	34	62	93	123	154	184	215	246	276	307	337
4	4	35	63	94	124	155	185	216	247	277	308	338
5	5	36	64	95	125	156	186	217	248	278	309	339
6	6	37	65	96	126	157	187	218	249	279	310	340
7	7	38	66	97	127	158	188	219	250	280	311	341
8	8	39	67	98	128	159	189	220	251	281	312	342
9	9	40	68	99	129	160	190	221	252	282	313	343
10	10	41	69	100	130	161	191	222	253	283	314	344
11	11	42	70	101	131	162	192	223	254	284	315	345

12	12	43	71	102	132	163	193	224	255	285	316	346
13	13	44	72	103	133	164	194	225	256	286	317	347
14	14	45	73	104	134	165	195	226	257	287	318	348
15	15	46	74	105	135	166	196	227	258	288	319	349
16	16	47	75	106	136	167	197	228	259	289	320	350
17	17	48	76	107	137	168	198	229	260	290	321	351
18	18	49	77	108	138	169	199	230	261	291	322	352
19	19	50	78	109	139	170	200	231	262	292	323	353
20	20	51	79	110	140	171	201	232	263	293	324	354
21	21	52	80	111	141	172	202	233	264	294	325	355
22	22	53	81	112	142	173	203	234	265	295	326	356
23	23	54	82	113	143	174	204	235	266	296	327	357
24	24	55	83	114	144	175	205	236	267	297	328	358
25	25	56	84	115	145	176	206	237	268	298	329	359
26	26	57	85	116	146	177	207	238	269	299	330	360
27	27	58	86	117	147	178	208	239	270	300	331	361
28	28	59	87	118	148	179	209	240	271	301	332	362
29	29	...	88	119	149	180	210	241	272	302	333	363
30	30	...	89	120	150	181	211	242	273	303	334	364
31	31	...	90	...	151	...	212	243	...	304	...	365

Day of Month	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1	366	397	425	456	486	517	547	578	609	639	670	700
2	367	398	426	457	487	518	548	579	610	640	671	701
3	368	399	427	458	488	519	549	580	611	641	672	702
4	369	400	428	459	489	520	550	581	612	642	673	703
5	370	401	429	460	490	521	551	582	613	643	674	704
6	371	402	430	461	491	522	552	583	614	644	675	705
7	372	403	431	462	492	523	553	584	615	645	676	706
8	373	404	432	463	493	524	554	585	616	646	677	707
9	374	405	433	464	494	525	555	586	617	647	678	708
10	375	406	434	465	495	526	556	587	618	648	679	709
11	376	407	435	466	496	527	557	588	619	649	680	710
12	377	408	436	467	497	528	558	589	620	650	681	711
13	378	409	437	468	498	529	559	590	621	651	682	712
14	379	410	438	469	499	530	560	591	622	652	683	713
15	380	411	439	470	500	531	561	592	623	653	684	714
16	381	412	440	471	501	532	562	593	624	654	685	715
17	382	413	441	472	502	533	563	594	625	655	686	716
18	383	414	442	473	503	534	564	595	626	656	687	717

19	384	415	443	474	504	535	565	596	627	657	688	718
20	385	416	444	475	505	536	566	597	628	658	689	719
21	386	417	445	476	506	537	567	598	629	659	690	720
22	387	418	446	477	507	538	568	599	630	660	691	721
23	388	419	447	478	508	539	569	600	631	661	692	722
24	389	420	448	479	509	540	570	601	632	662	693	723
25	390	421	449	480	510	541	571	602	633	663	694	724
26	391	422	450	481	511	542	572	603	634	664	695	725
27	392	423	451	482	512	543	573	604	635	665	696	726
28	393	424	452	483	513	544	574	605	636	666	697	727
29	394	...	453	484	514	545	575	606	637	667	698	728
30	395	...	454	485	515	546	576	607	638	668	699	729
31	396	...	455	...	516	...	577	608	...	669	...	730

Bull	Pasture	In Date	Out Date



Cow No.	Sire	Service Date	Expected Return Date	Calving Due Date	Remarks

Cow No.	Sire	Service Date	Expected Return Date	Calving Due Date	Remarks











Cow No.	Sire	Service Date	Expected Return Date	Calving Due Date	Remarks



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Cow No.	Sire	Service Date	Expected Return Date	Calving Due Date	Remarks

## Gestation Table

Find date of service in upper line. Figure below indicates date due to calve.

1	Jan	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	<b>Nov</b>	<b>11</b>
<b>10</b>	<b>Oct</b>	<b>13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12</b>		
2	Feb	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	<b>Dec</b>	<b>12</b>
<b>11</b>	<b>Nov</b>	<b>13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 1 2 3 4 5 6 7 8 9 10</b>		
3	Mar	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	<b>Jan</b>	<b>1</b>
<b>12</b>	<b>Dec</b>	<b>11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10</b>		
4	Apr	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	<b>Feb</b>	<b>2</b>
<b>1</b>	<b>Jan</b>	<b>11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9</b>		
5	May	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	<b>Mar</b>	<b>3</b>
<b>2</b>	<b>Feb</b>	<b>10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 1 2 3 4 5 6 7 8 9 10 11 12</b>		
6	Jun	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	<b>Apr</b>	<b>4</b>
<b>3</b>	<b>Mar</b>	<b>13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11</b>		

7	Jul	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	May	5
4	Apr	12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 1 2 3 4 5 6 7 8 9 10 11 12		
8	Aug	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	Jun	6
5	May	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12		
9	Sep	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	Jul	7
6	Jun	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 1 2 3 4 5 6 7 8 9 10 11 12		
10	Oct	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	Aug	8
7	Jul	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11 12		
11	Nov	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30	Sep	9
8	Aug	13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10 11		
12	Dec	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31	Oct	10
8	Sep	12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 1 2 3 4 5 6 7 8 9 10 11 12		

This table is based on 285-day gestations. It applies to non-leap years. For leap years, subtract one day after February 28.




































## Calving Period Summary

This is one of the keys to reproductive efficiency. The more calves born early in the calving season the better.

		<u>Number Calves Born</u>			<u>Total</u>	<u>%</u>
First 21 days	By age cow	2_____	3_____	4+_____	_____	_____
Second 21 days	By age cow	2_____	3_____	4+_____	_____	_____
Third 21 days	By age cow	2_____	3_____	4+_____	_____	_____
63+ days	By age cow	2_____	3_____	4+_____	_____	_____
Did not calve	By age cow	2_____	3_____	4+_____	_____	_____
	Total _____	_____	_____	_____	_____	_____

Date first calf born \_\_\_\_\_ Date last calf born \_\_\_\_\_

Length of calving season (days) \_\_\_\_\_

### Cow Fertility Data

Estimated time cows will calve in calving season	Heifer Rep	2	3	4+	Totals
Early (less than 30 days)	_____	_____	_____	_____	_____
Medium (30-60 days)	_____	_____	_____	_____	_____
Late (greater than 60 days)	_____	_____	_____	_____	_____
Open	_____	_____	_____	_____	_____
Total	_____	_____	_____	_____	_____

Date bulls put with cows \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

Approximate date of first calf \_\_\_\_\_/\_\_\_\_\_/\_\_\_\_\_

Cost of preg testing (vet, labor, etc.) \_\_\_\_\_ Per head \_\_\_\_\_

**Kansas State University Agricultural Experiment  
Station and Cooperative Extension Service**

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