

Autofeeders – Are they here to stay?

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How do they work?

- Group housed
- Milk always available
- Free choice grain
- Free choice water



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How do they work?

- Milk on demand
- Calf is allowed to drink a certain allotment at every visit
- Individual feeding plans/group plans
- Early weaning



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How do they work?

- 25 calves per feeding station
- 2 stations per unit (sometimes 4)
- Calves enter at different ages, determined by calf flow
- 35 square feet per calf resting space recommended
- Air quality is a must!!



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Advantages

- Labor savings
- Group housing
- Precision feeding
- Consistency



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Disadvantages

- Labor savings
- Group housing
- Precision feeding
- Consistency



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Types of Autofeeders

- Holm & Laue
- GEA Westphalia
- Delaval
- Urban
- Others



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GEA Westphalia



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DeLaval



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Urban



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How do we feed them.....?



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Feeding Plans

- Individual plans/group plans
- Based on birthdate
- Entry date



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Feeding Plans

- Conversions for milk replacer
 - 1 lb = 454 g
 - 1 gallon = 3.8 Liters
 - 1 Liter = 1,000 g
- Example:
 - 150 g/L at 8 Liters per day = 2.64 lb of powder/d



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Feeding Plans

- Keeping solids consistent
- Doing the math:
 - Powder (g) + water (g) = total weight (g)
 - [Powder (g) / total weight (g)] * 100 = % solids
- Example:
 - 150g + 1000g = 1150g
 - (150 / 1150) * 100 = 13%



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Feeding Plans

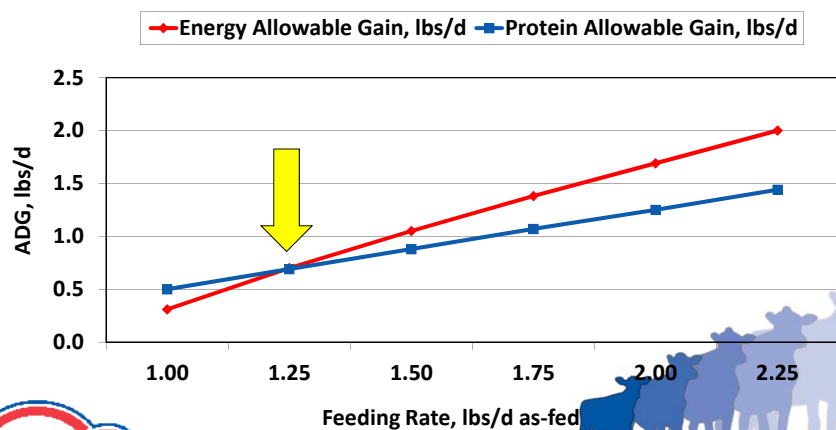
- Example – Milk Replacer (150 g/L)
 - Day 1 to Day 10
 - Ramp up to 8 L/day, calves can consume 2 L per visit
 - Day 11 to Day 35
 - Continue 8 L /day at 2 L per visit
 - Day 36 to Day 50
 - Slowly decrease milk to 0 L/day
 - (decrease 0.5 L /day)
 - Day 50 – Day 60
 - No Milk



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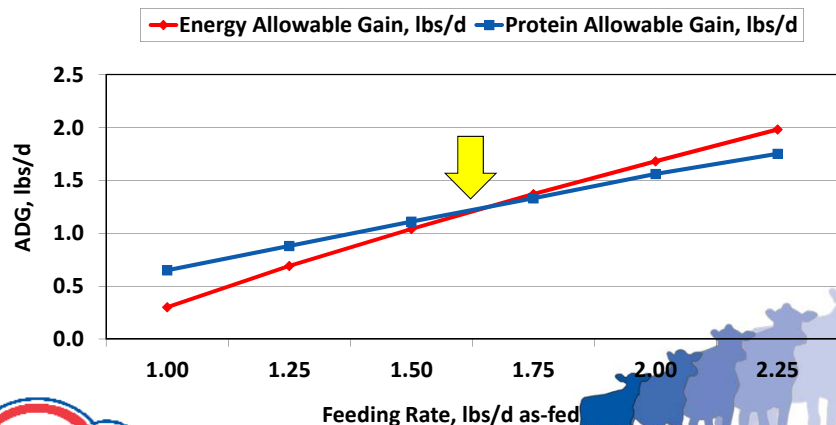
MR Feeding Rate and Predicted Gain 20-20 MR, 100 lb calf, 68°F



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MR Feeding Rate and Predicted Gain 24-18 MR, 100 lb calf, 68°F



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Feeding Plans

- Consistency of solids in pasteurized milk
- Using a refractometer
- Solids equation using milk
 - $TS\% = 0.9984 (\text{Brix}\%) + 2.077$
 - Essentially $\text{Brix}\% + 2$



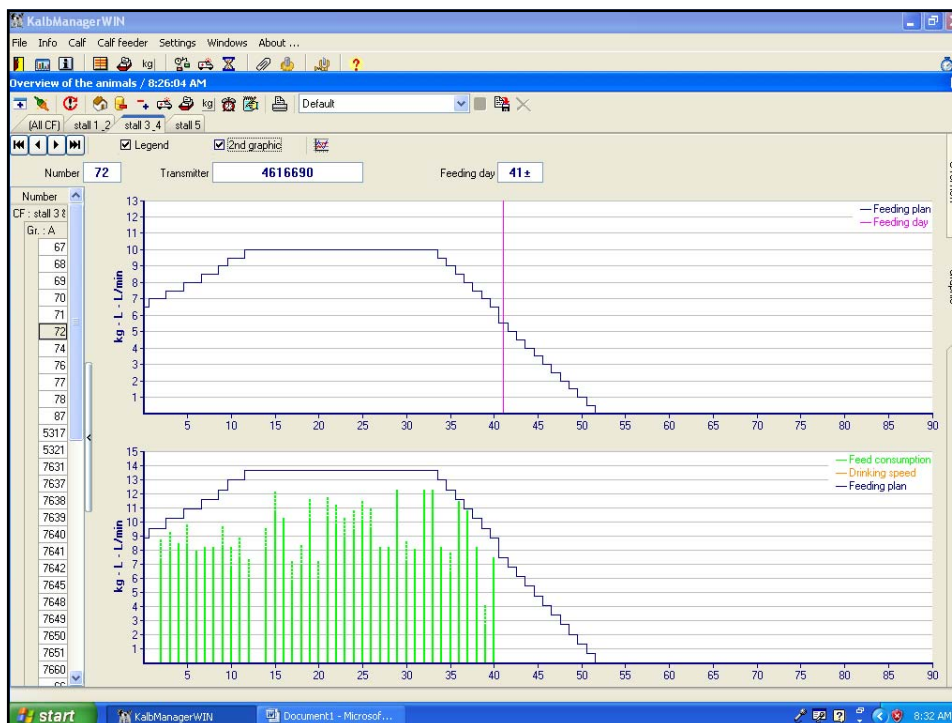
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Feeding Plans

- Example – Pasteurized Milk
 - Day 1 to Day 10
 - Ramp up to 10 L/day, calves can consume 2.5 L per visit
 - Day 11 to Day 35
 - Continue 10 L/day at 2.5 L per visit
 - Day 36 to Day 50
 - Slowly decrease milk to 0 L/day
 - (decrease 0.68 L per day)
 - Day 50 – Day 60
 - No Milk



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Medication Options

- Medicators additional tool
 - Use for medication options and / or electrolytes
 - Liquid or dry form



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The screenshot shows the 'KalbManagerWIN' software interface. It features a menu bar (File, Info, Calf, Calf Feeder, Settings, Windows, About...), a toolbar, and several data panels.

Prescriptions Panel: Shows a table with columns for Period, Days, Start quantity, and Final quantity. The data is as follows:

Period	Days	Start quantity	Final quantity
1	14	56	56
2	0	0	0
3	0	0	0
4	0	0	0
5	0	0	0
	14		784

Consumption Table: A detailed table showing consumption data for various calves. The columns include Date/Time, Entitlement (L), Consumption (L, %), Drinking speed (L/min, %), and Feed (Days, Corr.).

Date/Time	Entitlement L	Consumption		Drinking speed		Feed Days	Corr.		
		L	%	L/min	%				
53 04:00	2.9			100	100	Pr1	2		
51 09:00	2.0	2.7	39	0.2	102	0.2	89 Pr1	4	
52 10:26	1.8	0.2	7	6.5	100	0.9	120 Pr1	3	
52 09:50	2.0		6.1	93	100	0.7	97 Pr1	3	
53 09:02	2.0	100	4.0	66	1.2	108	1.1	100 Pr1	2
53 04:00	2.9		4.0	66	100	1.0	100 Pr1	2	

Medication/Dispenser Panel: Includes controls for 'Dispensed' (none, Dispenser 1), 'Dosage' (g/100 kg, g/day, g/L), and 'Distribution' (Even, Once a day, Twice a day). It also shows a table for 'Milk' and 'MP' consumption.

Additive Panel: Shows a list of additives with their respective quantities. The total additive quantity is 504.0 g.

Summary Table:

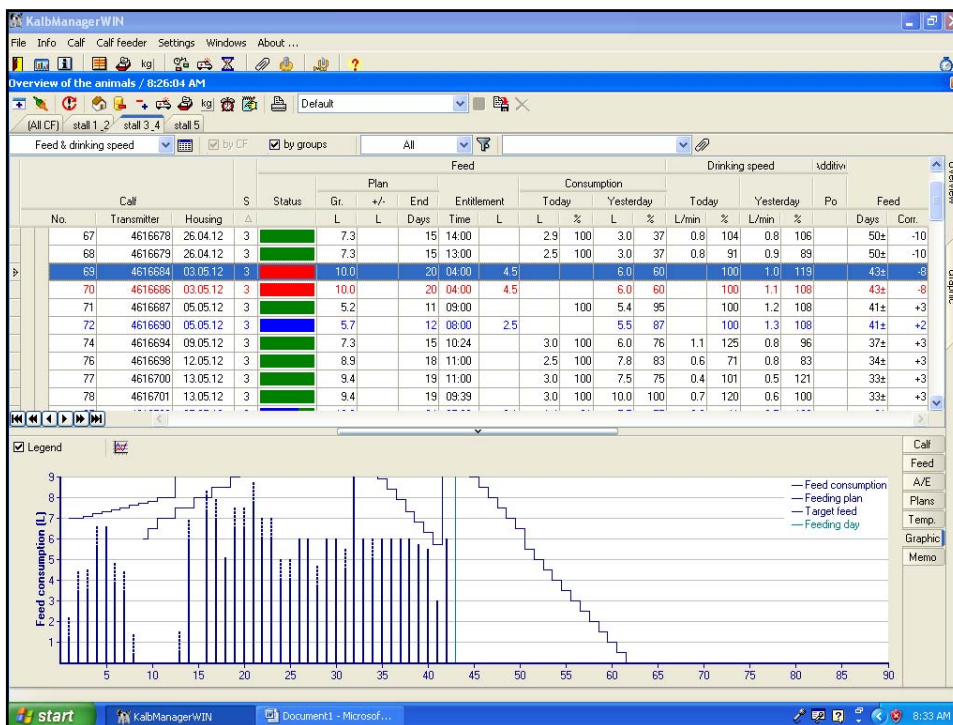
Item	Quantity	Unit
Plan	8.6	L
Entitlement	3.8	L
Consumption		L
End of plan	45	Days
Total	0	kg
Total	504.0	g

Monitoring the feeders

- Total volume consumed
- Visits
- Drinking speed



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KalbManagerWIN

File Info Calf Calf feeder Settings Windows About ...

Overview of the animals / 8:26:04 AM

(All CF) stall 1_2 stall 3_4 stall 5

Feed & drinking speed by CF by groups All

Calf No.	Transmitter	Housing	S	Status	Plan			Consumption				Drinking speed		Po	Feed Days	Corr.	
					Gr.	+/-	End	Today		Yesterday		L/min	L/min				
								L	%	L	%						
67	4616679	26.04.12	3	Green	7.3		15 14:00	2.9	100	3.0	37	0.8	104	0.8	106	50s	-10
68	4616679	26.04.12	3	Green	7.3		15 13:00	2.5	100	3.0	37	0.8	91	0.9	89	50s	-10
69	4616684	03.05.12	3	Red	10.0		20 04:00 4.5			6.0	60	100	1.0	119	43s	-8	
70	4616686	03.05.12	3	Red	10.0		20 04:00 4.5			6.0	60	100	1.1	108	43s	-8	
71	4616687	05.05.12	3	Green	5.2		11 09:00		100	5.4	95	100	1.2	108	41s	+3	
72	4616690	05.05.12	3	Blue	5.7		12 08:00 2.5			5.5	87	100	1.3	108	41s	+2	
74	4616694	09.05.12	3	Green	7.3		15 10:24	3.0	100	6.0	76	1.1	125	0.8	96	37s	+3
76	4616698	12.05.12	3	Green	8.9		18 11:00	2.5	100	7.8	83	0.6	71	0.8	83	34s	+3
77	4616700	13.05.12	3	Green	9.4		19 11:00	3.0	100	7.5	75	0.4	101	0.5	121	33s	+3
78	4616701	13.05.12	3	Green	9.4		19 09:39	3.0	100	10.0	100	0.7	120	0.6	100	33s	+3
87	4616726	25.05.12	3	Blue	10.0		34 07:00 3.1	1.4	31	7.5	75	0.3	41	0.7	100	21	
5317	4616691	07.05.12	3	Green	6.3		13 16:00	2.8	100	6.8	100	0.9	107	0.9	110	39s	+3

Feed alarm Today / yesterday

Feed-expire

Calarm C1 C2 C-expire

Cal Expire

Feed consumption Feeding plan end

Drinking speed Concentration plan end

Break without additive Powder additive End

Break with additive Liquid additive End

Robbery Deviations feed end

Powder additive too high Deviations concentration end

Liquid additive too high Deviations powder additive end

Powder additive too low Deviations liquid additive end

Minimum quantity plan End

Milk ratio plan End

<No data to display>

start KalbManagerWIN Document1 - Microsof... 8:34 AM

KalbManagerWIN

File Info Calf Calf feeder Settings Windows About ...

Overview of the animals / 8:26:04 AM

(All CF) stall 1_2 stall 3_4 stall 5

Feed & drinking speed by CF by groups All

Date	Day	Target L	Consumption		Drinking speed		Break		Visits		Weight kg	Additive Po
			L	%	L/min	%	w.add.	no add.	w.F	no F		
14.06.12	43	10.0					100					92.0
13.06.12	42	10.0	6.0	60	1.0	119			2			91.0
12.06.12	41	5.7	3.0	52	0.8	102			1			90.0
11.06.12	40	6.3	5.5	87	0.8	97			2			89.0
10.06.12	39	6.8	5.7	85	0.8	92			2			88.0
09.06.12	38	7.3	6.0	82	0.8	90			2	1		87.1
08.06.12	37	7.9	6.0	75	0.9	106			2			86.2
07.06.12	36	8.4	6.0	71	0.9	105			2			85.3
06.06.12	35	8.9	6.0	67	0.9	122			2			84.4
05.06.12	34	9.4	6.0	63	0.8	114		1	3			83.5
04.06.12	33	10.0	6.0	60	0.8	117			3			82.6
03.06.12	32	10.0	9.0	90	0.7	102			3			81.7
02.06.12	31	10.0	5.5	55	0.6	85		1	2			80.8
01.06.12	30	10.0	6.0	60	0.7	110			2	1		80.0
31.05.12	29	10.0	6.0	60	0.8	146			3			79.2
30.05.12	28	10.0	4.7	47	0.4	80			2	2		78.4
29.05.12	27	10.0	6.0	60	0.6	125			2	1		77.6
28.05.12	26	10.0	6.0	60	0.6	134			2	2		76.8
27.05.12	25	10.0	5.0	50	0.4	93			2	3	1	76.0
26.05.12	24	10.0	5.0	50	0.5	103			1	2		75.2
25.05.12	23	10.0	7.0	70	0.6	96			2	4		74.4

start KalbManagerWIN Document1 - Microsof... 8:34 AM

KalbManagerWIN

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(All CF) stall 1,2 stall 3,4 stall 5

Feed & drinking speed by CF by groups All

No.	Calf	Transmitter	Housing	S	Status	Plan			Consumption				Drinking speed			Po	Feed	Days	Corr.
						Gr.	+/-	End	Entitlement	Today	Yesterday	Today	Yesterday	Today	Yesterday				
67	4616678	26.04.12	3	Green	7.3		15	14:00		2.9	100	3.0	37	0.8	104	0.8	106	50±	-10
68	4616679	26.04.12	3	Green	7.3		15	13:00		2.5	100	3.0	37	0.8	91	0.9	89	50±	-10
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78	4616701	13.05.12	3	Green	9.4		19	09:39		3.0	100	10.0	100	0.7	120	0.6	100	33±	+3

5/13/12 7:03:37 AM : Sustain 3
5/11/12 8:43:20 AM : excellen
5/10/12 8:16:16 AM : excellen
5/9/12 7:50:20 AM : draom
5/8/12 5:11:17 PM : excellen

Save
Abandon

Quality Control

- Bacteria testing
- Cleaning protocols
- Circuit Clean Schedule
- Calibration of milk replacer, water or pasteurized milk



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Facilities

- Location of feeding station
- Location of water
- Location of grain feeders
- Animal flow
- Air quality
- Bedding
- Drainage



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Questions to Consider

- What do you expect out of your calf program?
- How will the autfeeder help you accomplish that goal?
- What information do you depend on to consistently raise healthy calves?
- What kind of a reporting system do you use?
- How do you monitor calf performance?



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Questions to Consider

- How will you adapt your current nutrition program to fit the autfeeder system?
- What are your current facilities?
- Will you need to renovate or update existing barns or sheds?
- Will you need to build new?



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Questions to Consider

- What is your calf flow?
- How many calves do you have per week?
- Per month? How will that fit in the rotation?
Will you use an all-in-all-out system?
- How will you group calves?



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Questions to Consider

- What is your current labor situation?
- How will you train employees on the new system?
- Who will you go to as a resource?



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Questions ???



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