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Cow SIGNALS®

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From calf to heifer

A practical guide for rearing young stock

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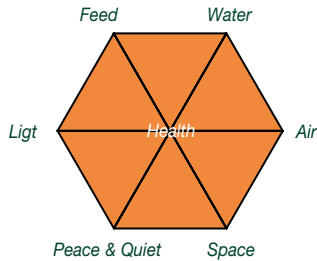
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**PRODUCING
DAIRY COWS**

To rear young stock successfully you need to be a canny and disciplined farmer, do the right things and always do them correctly, which means that every day you have to assess the calf's needs in a cheap, quick and easy way.



The Cow Signals Diamond names the 7 vital necessities of the calf. Make sure they're provided and check them.

Making a plan for the week will help you allocate your time efficiently. By following the plan, you'll be certain always to do the right job at the right time.

Investing in the future

Cutting corners doesn't often save costs but it does ultimately reduce your revenue. In this book, rearing starts with the drying-off of the dam and stops six to eight weeks before her offspring's expected calving date – the time when the heifer joins the dairy herd.

Proper rearing practices result in a heifer that:

- delivers a healthy calf;
- calves at the age of 22-24 months;
- weighs 580 kg after calving;
- has optimal resistance to infectious disease;
- has skills and capacities necessary for a lifetime as a milking cow;
- can hold her own in the herd;
- is a good producer throughout her lifetime.

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Clean drinking troughs (all of them!)	Vet (first Tuesday of the month) Milking parlour day	Put down fresh bedding for calves and yearlings	Day for moving stock: Dry off cows + trim feet	Clean drinking troughs (all of them!)	Put down fresh bedding for calves and yearlings	
Pump out manure	<ul style="list-style-type: none"> ● disinfect the clusters ● check rubber parts and replace if needed ● disinfect lamps ● disinfect filter 	Every week: <ul style="list-style-type: none"> ● work remaining from Tuesday 	Heifers to the milking herd shed, trim feet, weigh, clip, check	Pump out manure		
Put down fresh bedding for calves and yearlings	<ul style="list-style-type: none"> ● disinfect filter holder and vat ● cooler: top up oil 	Every fortnight: <ul style="list-style-type: none"> ● work remaining from Tuesday 	Check navels Wean calves Move calves	Footbath: <ul style="list-style-type: none"> ● milking cows ● dry cows + heifers ● yearlings 		
Silage pits and silos: adjust and secure the covers, tidy up	Every two weeks: Disinfect milking parlour: <ul style="list-style-type: none"> ● the pit floor and wall ● the cow platform and wall 	Every month <ul style="list-style-type: none"> ● work remaining from Tuesday 	Clean out igloo hutches, hose down + disinfect	Put down fresh bedding for calves and yearlings		
Calf day: <ul style="list-style-type: none"> ● select ● check navels ● de-horn ● disinfect the feeding area ● disinfect around the feeding area ● clear out the dung 	Disinfect dairy room: <ul style="list-style-type: none"> ● floor ● tank, pipelines, lamps, walls, ceiling ● disinfect front of tank and all screws ● disinfect filter of pre-cooler 		Tractor, forklift truck, feed trailer: <ul style="list-style-type: none"> ● fill up with fuel ● lubricate ● check oil (motor+ hydraulics) ● clean air filter + cooling system 	Silage pits and silos: adjust and secure the covers, tidy up		
Order feed						

Age and appropriate care

Calf rearing can be divided into seven periods, each with its own characteristics. The time bar below is for a heifer calving at 24 months of age. The length of the rearing period differs greatly between farms.



Birth. Rearing gets off to a good start if birth is quick and the calving environment is clean.



First two months: a nurturing phase. Very vulnerable, must be prepared for weaning.



Eight months until in-calf. The calf is getting stronger, growth is controlled.

	Calving	First few days	Drinking milk	Weaning	Growing	Getting in calf	In calf
Age	Day 0	0 - 3 days	3 days - 8 weeks	2 months	2 - 7 months	7-13/15 months	13/15 - 22/24 months
Weight	40 kg	40 kg	40 - 80 kg	80 kg	80 - 210 kg	210 - 370/390 kg	350 - 580 kg
	Chapter 1		Chapter 2		Chapter 3		Chapter 4



The first fortnight: nursery phase. Very susceptible, especially to infection.



Up to seven months: like a hothouse plant. Still vulnerable, but can grow fast.



In-calf yearling: maturing phase.

Working with young stock signals

By observing their signals daily you'll know how the animals feel, how they are developing and how healthy they are. Three questions are important.

1. *What do I see?*
2. *Why has this happened?*
3. *Is this OK, or could it be better?*

First you look, then you think, and finally you act: look - think - act.

Checks are indispensable

A check is only as good as the person doing the checking. What should you pay attention to? Do you take enough time? Do you look at each calf? Are you critical and open-minded? Can you intervene to improve things?

Checking must be easy to do, otherwise you won't do it properly or often enough. First and foremost look at what you know will give useful information, such as alertness, ear position, and the composition and consistency of the dung.

Unclassified notable observations (UNO)

Sometimes you observe something that you're not actually looking for – what we call an Unclassified Notable Observation or UNO. A UNO (pronounced 'you know') provides you with information that you learn from: 'Oh, now I know'. So, observing yearlings licking the walls frequently could mean they lack minerals or trace elements.

Regular checks

What goes in

Newborn calf

What happens

Daily:
behaviour/general impression
health/disease
intake/utilisation of feed
rest/hygiene/comfort/
environment UNOs

At regular intervals:
growth and condition

What comes out

Heifer

In the rearing process there are three critical moments at which quality must be checked: at the beginning (the calf), during rearing (daily, at fixed times) and at the end (the heifer and her performance). Checking the rearing process must be part of your routine.

Puzzle picture

What do you think of this, Mr Manager?



Igloo hutches are brilliant, but if they're too far away or difficult to access you probably won't check them enough and will act too late. And daily tasks like feeding and watering will be more difficult, especially at times of risk: when the weather's bad, or you're in a rush.

Times of risk

There are many periods of its life in which the young animal is at greater risk of developing problems. Know the possible risks, minimise them, check for them specifically, and if problems do arise, know what to do.

The times of risk include:

- birth
- first few days and weeks
- the move from individual housing to group pens
- changes in the weather
- weaning
- bringing indoors
- transition to pasture
- farmer overworked/short of time (silaging, illness, local events)

Standard Procedures

The best way to ensure you always do things properly is always to do things the same way. So, follow Standard Procedures.

Only by always doing things the same way can you check that the procedure is producing the best result. Write down your own procedures (protocols), and check and evaluate them. Do this in consultation with experts.



Before they can be weaned, calves have to be eating concentrates and roughage well, so that after weaning they'll still take in enough food. If they don't, growth slows down and the animals are at risk of health problems.



On average, yearlings need 1.4 inseminations to get in calf. That's your goal and your yardstick. If it takes more inseminations, you need to know why. Is the problem the heifer's or the farm's? Is it to do with nutrition or care, or heat detection? Is it the insemination?

Know thyself

Rearing young stock is about taking great care of young, vulnerable animals. Some people are naturally very observant and happy to work according to established routines. Others are less so. Know yourself, and you'll be able to exploit your strengths and take steps to avoid letting your weak points drag you down.



**‘What you need to rear young stock well
is care, discipline and expertise.’**



Rearing calves into heifers is a major investment in terms of money and labour. Your dual aims are to turn your heifer into a strong, productive dairy cow and to use labour, housing and feed efficiently. If you achieve these aims, you'll cut the costs of rearing per kilogram of milk.

From calf to heifer covers the basics of successful rearing, shows you how to control risks and helps you to structure your work so that each calf automatically receives the best treatment. **From calf to heifer** will open your eyes to how you run your farm. It's full of sensible tips on how to improve the rearing of calves and yearlings. Written clearly and illustrated with useful photos and Marleen Felijs's splendid drawings, this informative handbook is very user-friendly and down to earth.

You'll find yourself turning to **From calf to heifer** time and again for its practical information: after all, your young stock are your future!

From calf to heifer is one of the CowSIGNALS® series.

CowSIGNALS®: highly practical, reader-friendly information on animal-oriented cattle farming.

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From calf to heifer

A practical guide
for rearing
young stock

