

INTRODUCTION

The Dexter Cattle Society New Zealand (Inc.) is pleased to present this revised edition of the breeder's handbook. It gives useful information not only for the novice Dexter owner but it is also a useful reference guide for established members.

This handbook gives details of the breed standard, breeding, registration, and transfer systems, plus the establishment of breeding records.

It should however be read in conjunction with the latest society constitution and regulations.

This handbook is produced periodically and therefore may not contain new or amended regulations passed at subsequent Annual General Meetings. It is the duty of all members to ensure that they are familiar with any changes which are published in our quarterly magazine, **Dexter Dispatch**. You can also go to our website: **www.dextercattle.nz**

We place no copyright on our breeders handbook as we feel that members may find it useful to copy some of the information to pass on to purchasers of livestock who, in turn, may develop further interest in our historic breed.

We wish you good reading and hope that you find the booklet useful and informative.

As of 1 July 2012, National Animal Identification and Tracing (NAIT) became compulsory for all cattle in New Zealand. The old TB tagging system became obsolete and new NAIT approved, Radio Frequency Identification Device (RFID) ear tags became mandatory. See pages 4 and 5 for the details.

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A GUIDE TO THE NEW ZEALAND DEXTER CATTLE BREED

(Breed Standard as per Appendix II in the DCSNZ Inc Regulations)

Breed Objectives

- To encourage improvement in the quality of Dexter cattle herds.
- To encourage the preservation of the natural characteristics and traits in Dexter Cattle.

Colour

Wholly black, red or dun are of equal merit. A small amount of white is acceptable providing it reaches no further forward than the navel on the underline of females and is restricted to the testicular area of males. A small amount of white is acceptable on the tip of the tail. Animals outside of these colour criteria are shown with an asterisk (*) in the Herd Book.

Skin and Hair

The skin should be loose and pliable. Hair is short and sleek in summer; longer and thicker in winter

Type

The Dexter is a dual purpose breed with both beef and dairy qualities.

Head and Horns

Short, broad head tapering gracefully towards a broad muzzle. Jaw should be wide enough to accommodate well placed teeth with an even bite. Eyes bright and prominent. Horns should be moderately thick with an inward, upward curve or can be de-horned. A naturally polled animal is one that will not grow horns in its lifetime. Horned, de-horned or polled are of equal merit.

Neck

Deep and thick, but not too short, blending well into the shoulders.

Body

Ample chest with well-sprung ribs giving plenty of room for the heart and lungs. Wide across the loins. Quarters thick and deep, broad full hips, well-rounded rump. A straight top line with tail set level with the spine. Good width between both front and back legs. Legs should be of moderate length in proportion to body size, squarely placed under the body, wide apart and perpendicular when viewed from the rear. Feet should be well formed but can be proportionately broader or larger than in other breeds, with toes that may also point slightly inwards.

Cows

Udder should be well attached with high and wide rear attachment and a strong suspensory ligament. The four teats should be of medium size and well spaced on the udder, hanging plumb and of equal length. All four quarters should be of equal size.

Bulls

Large well hung testicles of even size. Four well defined teats evenly spaced.

Size

- Cows the preferred height is between 96cm $(37\frac{1}{2})$, and 108cm $(42\frac{1}{2})$ at the rump.
- **Bulls** the preferred height is between 100cm (39") and 114cm (45") at the rump.



BUYING AND SELLING CATTLE

"Caveat Emptor" - Let the buyer beware!

While we would like to think that all vendors are genuine, sadly, this is not always the case. Buyers should do their homework thoroughly and reduce the chances of being "ripped off".

Vendors have the responsibility of presenting accurate and comprehensive information about all animals offered for sale.

Buyers, on the other hand, have to satisfy themselves that they are dealing with an honest and reputable vendor, and that the animals on offer are genuine.

Buyers

Should check out the following points:

- 1. Is the animal registered? Ask the seller for proof. If the animal is over 24 months old and not registered, ask why?
- 2. Does the animal carry an official brass tag and NAIT tag?
- 3. Does the year of birth and Herd Book number on the brass tag match the details shown on the Registration Certificate?
- 4. If a female is presented as "in calf", has the vendor had the pregnancy confirmed by a veterinary examination or scanning?
- 5. Ask how much handling the animal has experienced.
- 6. Check out the vendor's feeding and farming methods to see how they compare with your own. This information will help you determine how the animals will shift and perform under your conditions.
- 7. Do not expect vendors to guarantee fertility if the animals on offer are very young (under 6 months of age).
- 8. Consider the potential risks and ask the vendor what they would do if, for example, an 'in calf' heifer calves much later than the expected

- date, or a 15 month old bull fails to breed? It is too late to address such issues after ownership changes hands unless a written guarantee has been given.
- Satisfy yourself that you are dealing with a genuine and honest vendor.
 Check their reputation with neighbours, other breeders, or even stock firms. A genuine vendor will not mind as they will have nothing to hide.
- It is recommended that Dexters are only purchased from financial members of the DCSNZ Inc
- 11. A DNA profile with Sire verification certificate must be lodged with the DCSNZ for all bulls first registered after 1 June 2010 be certain this has been done.
- 12. It is recommended that you sight the animal prior to purchase.

Vendors

Also need to satisfy themselves on the following points:

- 1. Is the buyer going to give your animal a good home?
- Is the buyer able to afford the purchase price? If in doubt, insist on a bank cheque or cash in payment. Otherwise, do not part with the animal until a buyer's personal cheque has been cleared through your bank (allow 7 days).





NATIONAL ANIMAL IDENTIFICATION & TRACING - NAIT

NAIT is mandatory for cattle - To comply with the NAIT scheme you need to:

- Have your NAIT number. People in charge of animals need to register in the NAIT System and get a NAIT number which is different to the Animal Health Board (AHB) herd number.
- Tag your cattle with NAIT-approved radio frequency identification device (RFID) ear tags

NAIT-approved RFID tags are the only mandatory tags for cattle since 1 July 2012. Newborn calves must be tagged within 180 days of birth or before they are moved off your property, whichever is sooner. Animals with existing TB tags must be retagged with the approved NAIT RFID ear tags prior to them leaving your property. Check NAIT website for exemptions.

- Register your cattle in the NAIT IT System within 1 week of being tagged.
- Record all movements of cattle on or off your property in the NAIT IT System.

If you move your animals to a NAIT-accredited sale yard or meat processor they will record the movement for you.

Record all deaths, losses or exports of live cattle in the NAIT IT System.

To find out more: email info@nait.co.nz or Ph 0800 624 843

ORDERING NAIT-APPROVED RFID TAGS

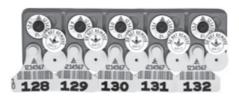
You can order NAIT tags in the same way that you would normally order tags - from farm supply stores (for AHB tags) or through your artificial breeding provider (LIC or CRV Ambreed). You will need to have your AHB herd number or dairy participant code to order your tags. If you do not have an AHB herd number you should contact the Animal Health Board on 0800 437 243 or www. tbfree.co.nz

Make sure you order NAIT-approved tags. NAIT-approved tags meet NAIT's performance standard, including a high retention rate when applied correctly.

Remember: RFID tags with the white female portion are for cattle, the back portion must also be white.

Birth tags

Birth tags are ideal for young NAIT animals born from now on. Birth tags are printed with the AHB herd number, animal number, year of birth (optional) and the AHB Logo. NAIT birth tags are currently sold as a set with another official tag printed with the same information.



A strip of NAIT birth tags with optional matching panel tags (birth tag set)

Traka tags

Traka tags can be used to make existing animals NAIT-compliant before their first off-farm movement. They can also be used as a replacement NAIT tag if the original tag is lost.

Traka tags are printed with the tag's 16-digit RFID number, the AHB herd number and the AHB logo.



NAIT traka tag



TUBERCULOSIS - TB

Buyer Beware: - When purchasing any animal always ask for the TB status of the property and ensure you receive a TB status declaration form when taking delivery of the stock.

How to read the certificate:

C1 = 1 year clear of TB

C2 = 2 years clear of TB

C3 = 3 years clear of TB etc etc

Surveillance TB testing is FREE. Specifically requested tests from AgriQuality (MAF) are charged for. Please insure you inform AgriQuality (MAF) when you purchase your first animals so they can allocate you with a herd number and record you on their database. When they are in your area they will test your cattle (surveillance - no charge), which will help us keep this disease under control.

What is Movement Control?

There are certain areas in NZ that are under Movement Control. Every area tests differently depending on the TB status of that area. Contact your local AgriQuality (MAF) office to see how often your herd needs to be tested.

When selling/moving/slaughtering or showing animals they all must have the approved NAIT tags in their ear and they must be accompanied by the Animal Status Declaration Form which are available from your local AgriQuality office or by phoning the Animal Health Board on 0800 4 824 636



BREEDING CYCLE (OESTRUS)

The breeding cycle of cattle occurs every 18 to 24 days - the average being 21 days. When the cow is 'in season' (on heat) she is ready to be served by a bull or artificially inseminated.

Dexter cattle can become mature between five and six months old. A calf may have her first season at this age and will become pregnant if a bull is present. A bull calf is also able to impregnate a cow at this age. An ideal breeding age for heifers is 15 months+.

Detecting Heats

There are three phases to the heat period -

- 1. **Coming into heat** during this period the cow is restless, often bellows, will smell other cows and attempt to ride them.
- 2. **Standing heat** at this stage she will stand to be ridden by others, is nervous and excitable, rides other cows, will hold her milk, and discharges a clear mucus from the vulva.
- 3. **Going off Heat** at this stage she smells other cows but no longer stands to be ridden and the mucus discharge may continue.

Breeders have to check their animals regularly (at least twice daily) to observe the behaviour amongst their cattle. Inexperienced people should take special note of the three phases outlined above, and allow a little time to elapse to ensure that they identify which cow is in season. It is easy to pick the wrong one just because she is attempting to ride others.

Take a leaf out of the dairy farmer's book and commence recording heats as they occur after calving. This information enables you to estimate when females will come into season, so you can keep an eye out for them.

Tail paint. Tail paint is an effective aid that will assist in the identification of cows in season. A 25 cm strip is painted along the backbone from the hips to the top of the tail. Paint the hair so that it lies flat (from the hip towards the tail). When

another animal rides her, the painted surface will be roughed up and the paint could be worn off. This will indicate that the animal has been on 'standing heat' since you last checked her.

Indicators. There are a number of commercial heat detectors that are stuck on the animal's back (similar to tail paint). When the animal has been ridden the detector changes colour.

I Only Have One Cow - How Can I Tell?

Observation is very important if you are to learn the difference between normal and abnormal behaviour.

Is your female's behaviour different from normal? Is she doing anything unusual like bellowing for no reason, walking up and down the fence line, showing signs of restlessness, noticing every movement or sound, seems to be intensely alert or withholding her milk? These are all signs that she could be in season. An experienced A.I. technician should be able to confirm whether she is ready to inseminate or not.

Best Time to Inseminate

Good quality semen will survive in the reproductive tract of the cow for approximately 28 hours while the egg remains fertile for only 6 hours after ovulation. It is therefore important not to inseminate too early.

The chart (Appendix 1) clearly indicates the best time to inseminate which is from 6 to 24 hours after the commencement of standing heat.

Best Time for Natural Mating

The bull will determine when the time is right, so timing can to some extent be left to nature. However it is important not to leave it too late. In this case, too early is better than too late as once the cow has gone off standing heat, she will not let the bull serve her.

Order Your Semen Early

If you are intending to breed your cows with artificial insemination, it is important to prepare well in advance by ordering your semen and having it delivered to your technician or vet in plenty of time. Check Technician's times for returning semen to bank, some technicians finish around Christmas.

Synchronisation

The heats of all females can be brought into synch by the use of ciders and drugs. This treatment artificially alters the natural cycle, so successful conception results from insemination at the first heat after treatment can be patchy.

Gestation Period

The gestation period of cattle is 282 days. A table to assist you calculate the expected calving date of matings can be found on Appendix 2.



BREEDING SYSTEMS

A breeding system is the method adopted to decide which sires will be mated to which cows.

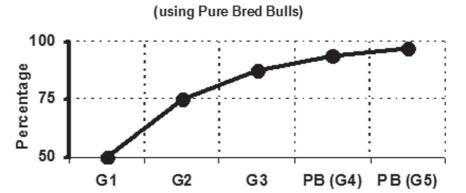
All breeders should first decide on the goal they wish to achieve with their breeding activities, then decide on the breeding system that they think will best achieve that goal. Sometimes a combination of systems may be used.

Breeders have a responsibility to set a high standard of excellence as their selection criteria for breed characteristics, viability and fertility. Strict culling of animals that show weakness in any of these areas must be accepted if the quality of the breed is to improve.

Grading Up

This term is used to describe the process of cross-breeding pure-bred Dexters over base dams and their succeeding progeny until pure-bred Dexters are obtained.

Approximate Dexter Percentage by Grade



Grade	Cross	
1	1st	Female progeny by pure-bred Dexter bull over base cow of another breed (registered before 30th June 2007. Since June 2007, no further Grade 1's have been accepted for registration.)
2	2nd	Female progeny by pure-bred Dexter bull over Grade I Dexter cow
3	3rd	Female progeny by pure-bred Dexter bull over Grade 2 Dexter cow
РВ	4th	Female progeny by pure-bred Dexter bull over Grade 3 Dexter cow
РВ	5th or higher	Male and female progeny by pure-bred Dexter bull over PB (Grade 4 or higher) Dexter cow. Males have to be DNA profiled and sire verified prior to being accepted for registration.

Inbreeding

This describes the mating together of animals which are related. Their resulting offspring will have one or more ancestors that occur on both the sire's side and the dam's side of the pedigree.

Inbreeding can vary from extreme (or close) to less extreme (or distant). Close inbreeding is the mating of two full siblings, or parents to offspring. More distant inbreeding includes the mating of two half-siblings, or cousin to cousin.

Inbreeding itself is neither good nor bad. The quality of the result will depend on what goes into the mating. If good animals are used, then good animals should uniformly come out. But, if any genetic weakness exists, then weak or deformed animals can result. If a good looking animal is hiding a genetic weakness, then that weakness will be exposed.

For these reasons, inbreeding should always be coupled with a programme of selection of excellence.

When levels of inbreeding pass certain thresholds, most groups of animals will experience "inbreeding depression" - a decline in reproductive fitness and vigour of the offspring produced.

Line breeding

Technically, line breeding is a form of inbreeding that seeks to concentrate the genetic impact of a single excellent individual (rather than several) throughout a population.

The aim is to create a group of animals as much like the chosen individual as is possible.

The most common line breeding mating is a half-brother to a half-sister, although cousin matings are also considered line breeding. The differences between line breeding and inbreeding are subtle. Most of the comments about inbreeding are also true of line breeding, however, line breeding is less extreme and its benefits can be gained with a lower risk.

The weakness of inbreeding and line breeding is the possible loss of vigour and reproductive performance. To prevent this, rigorous culling should always be an important part of an inbreeding or line breeding programme.

Line-crossing (sometimes referred to as 'Out-crossing')

This is really the opposite of inbreeding or line breeding in that sires are selected for their total lack of common ancestors to that of the female. In other words, there is no ancestral link within the bloodlines of male and female.

Line-crossing is not an excuse to abandon the high excellence selection criteria when deciding which animals should be bred from. If a weakness appears, hard though it may be, it should be removed from the breeding programme immediately.

Crossbreeding

This is the mating together of two different breeds. The initial result sometimes results in a spectacular performance boost referred to as hybrid vigour.

Chondrodysplasia: Carrier – Non Carrier or Short Leg – Long leg.

Chondrodysplasia / Dwarf / Carrier / Short legged, are all terms used to describe the smaller phenotype of the Dexter that is associated with genes that can produce the 'bulldog' disorder when 2 carrier animals are bred together. In this case often the foetus has the appearance of a bulldog and is aborted early.

The terms Long Leg and Short Leg when applied to Dexter Cattle are not generally a reference to the height of the animal. Generally they are colloquial terms adopted for describing animals carrying the Chondrodysplasia dwarfing gene (short leg) and those animals which do not (long leg). It is not always easy to tell which is which just by looking at them with a passing glance,

Carrier and non carrier animals are of the same merit with respect to the DCSNZ Dexter Breed Standard for the purposes of breeding, registration and showing.

Chondrodysplasia is a form of dwarfism similar to that which occurs in many cattle breeds. The gene specific to Dexters was identified through research in Australia some years ago and the test is now readily available and is a cost effective breeding tool through which you can find which of your Dexters are carriers. Two identified carriers should not be bred together.



Stud breeders should keep clear and accurate records of all breeding activities within their Stud and these records must be made available for inspection upon request.

"NS" - Natural Service

Breeders must keep a record of all observed matings and/or the period a bull is run with females.

Natural services occur when the bull serves the cow. If you are using your own bull, you must record all observed matings.

"RWB" is the accepted abbreviation for "run with bull". Many farmers run a bull with their females for varying lengths of time so that he can serve each female as she comes into season. This is an acceptable practice provided you record both the date that a bull is put in with the females and also the date that he is removed.

It is not recommended to run more than one bull with the same group of females, as proof of parentage cannot be verified without blood typing or DNA testing. In cases of doubt, the Society may request a DNA parentage test.

Do not introduce another bull to a group of females until a **gap of 4 - 5 weeks** has elapsed since the first bull was removed.

Hand Mating describes the practice of taking the cow or heifer to the bull while she is in season and removing her once she has been served.

Using a Bull Belonging to Another Breeder

• When you borrow or lease a bull to run with your cattle on your own property, it will be necessary for you to obtain a signed "Certificate of Use of Sire" (see enclosed sample) from the owner of the bull giving details of the period that the bull was on your property. You will need to keep all the same records of matings or "RWB" periods, as set out above, for those owning their own bulls.

• If you take your cow or heifer to another breeder's property for service by their bull, you should obtain a signed "Certificate of Service" (see enclosed sample) from the owner of the bull providing dates of observed matings and / or the "RWB" period.

Using Your Own Bull

If you have used your own bull, there is no need for a Certificate, as you have to sign the "Registration Application" (see enclosed sample) as being true and correct.

"AI" - Artificial Insemination

If you have your females inseminated with Dexter semen, you should keep an independent record of each insemination. Ensure that the technician completes and signs the "Al Certificate" (see enclosed sample) which must be kept and attached to the registration application when you register the resulting calf or calves.

This Certificate will record the identification of both your female and the straw of semen used.

"ET" - Embryo Transplants

As with AI, an "ET Certificate" must be issued and signed by the veterinary surgeon that performs the implant. This certificate should give full details of the embryo's sire and dam together with date of implant and identity of your recipient female. You should also obtain copies of the records made at the time the embryos were collected. In the case of imported embryos, a copy of the M.A.F clearance and Import Certificate must also be attached, along with five-generation pedigrees of the Sire and Dam respectively.

These papers must be attached to the Registration Application when you register the resulting progeny.



Identification at Birth

The date of calving can vary up to two weeks before or after the cow's "due date".

All calves should be temporarily identified at birth with a suitable plastic tag bearing a unique number, code or name.

Breeders must keep a register of all births recording each calf's tag, date of birth, sex, dam and sire. The calf's name and Herd Book number can be added later when the calf is registered with the DCSNZ Inc.

Identification after Registration

After animals have been registered with the DCSNZ Inc an official brass tag will be issued for each animal. These brass tags must be inserted into the animal's ear as soon as possible.

The brass tags carry the following information - Herd Book number, "DCSNZ" and year of birth - see example.

1150 DCSNZ 01

Applicators for inserting brass tags can be purchased from most farming retailers. Alternatively, you may be able to borrow one from a Member or friendly neighbouring farmer.

The recognised NAIT tags along with the brass tag, once both have been inserted, give dual identification and can be crucial in the event that one tag gets lost. If animals are moved off the farm they must comply with NAIT requirements.



NAMING CATTLE

Names (including Stud Prefix) should not exceed 30 characters in length (counting each space as a character). The Stud name should always come first.

There are several "systems" that can be used in the naming process and you are free to choose whichever suits you best.

Names Beginning with a Year "Letter"

A different letter of the alphabet is assigned to each year, and calves born in any one year are all given names beginning with the same letter - e.g. 2001 = "A" so names could be Anna, Annabel, Alice, Amy, etc.

Assigning a Letter to Each Family

All the progeny from an original female are given names beginning with the same letter. This can be helpful if you have difficulty remembering the parentage of individual animals. For example, your original cow could be named "xxx Mary" (xxx = stud prefix). All Mary's daughters, grand-daughters, great grand daughters, etc. etc. are each given names beginning with "M".

Assigning a Category to Each Family

This is similar to the "family letter" principle. Categories such as birds, gemstones, royal titles, film stars, flowers, plants, etc. Can be used instead of an alphabetical letter.

As an example, a "gemstone" family could have names such as Diamond, Ruby, Pearl, Emerald, Amethyst, and so on.

A Sire Indicator

Breeders sometimes like to include a short name for the sire's name to identify the sire of each animal. To illustrate this principle, a heifer could be named "xxx Law Princess" where her sire was Cornahir Outlaw. Likewise a daughter of Meadowpark Charles might be named "xxx Charles Ruby".

Random Names

You are not obliged to choose any of the above methods. If you prefer you can choose whatever name at random.



REGISTRATION OF DEXTER CATTLE

All Dexter cattle must be registered before they reach the age of 24 months, although registration of animals between the ages of 24 and 36 months will be allowed upon payment of a penalty fee amounting to double the current registration fee and with council's approval.

DNA Testing is required for all bulls before they can be registered. Tail Hairs plucked from the tail switch is what is needed for a DNA test. It is important the tail hairs have the follicles attached and these are sent away for testing. Please use paper envelopes NOT plastic bags. Forms are downloadable from the DCSNZ website or the registration maybe done online.

The following documentation **must** be attached to the Registration Application Form where applicable -

- "Al Certificate" for calves resulting from Artificial insemination.
- "ET Certificate" for calves resulting from embryo transplants.
- "Certificate of Service" for calves resulting from natural matings where you have sent your cow(s) to another Breeder for service.
- "Certificate of Use of Sire" for calves resulting from natural matings where you have brought another Breeder's bull onto your property to serve your cow(s).
- "DNA Profile with Sire verification certificate". An official DNA
 profile with Sire verification certificate for all bulls must accompany the
 registration form or have previously been lodged with the DCSNZ.

Keep a photocopy of all your completed Registration Applications and attachments with your records in case of loss.

Registration Certificates

When an animal has been entered into the DCSNZ Inc Herd Register, a Registration Certificate will be issued. These certificates must be kept in a secure place.

Transfers or Change of Ownership

If you sell one of your animals, to a member or a non member, you will have to complete all the relevant details on the Transfer Section of the Registration Certificate and post it, with the relevant fee, to the Herd Registrar. It is the responsibility of the Seller to pay the fee, ensure that the Buyer has signed the transfer, and then post it to the Herd Registrar within 30 days of the sale, or use the online transfer form on the website.

Remember to complete the relevant mating details if a female is "in calf". Attach a copy of the Al Certificate signed by the Technician, if the pregnancy is the result of artificial insemination. The original Al Certificate should be given to the new owner.

Likewise, if applicable, a "Certificate of Service" or "Certificate of Use of Sire" may also be required. (Refer to the section on "Breeding Records").

All forms are available via the Dexter website www.dextercattle.nz

Culling or Death of an Animal

If an animal dies or has to be culled, you must notify the Herd Registrar, Detailing what has become of the animal, so that the information can be entered into the Herd Register, **The website has an online cull form for this purpose**.



Halter training should begin from as early as possible. About 1 week of age is a good time to start. This gives the calf and mother time to settle in together before we start to interfere.

The first thing you really need to do is think like a calf ie; you need to know how the calf is going to react to the training and why it is reacting this way. Most of the initial reactions by the calf are going to be out of fear and/or confusion. For some calves the 'fight or flight' rule may apply in some situations and you will need to be ready for it and also understand why this is happening. Try to remember that you know what you want the calf to do but the calf doesn't know what you want. If you can keep this in mind at all times then it will make the job easier and less stressful for both you and the calf.

Halter training a hand-reared calf is often easier as you have already established a bond or relationship with the calf so you will have eliminated a lot of the fear factor. However, if you intend to show the calf with it's mother it will need to be reared on it's mother.

Halter training should always be done initially in a yard or pen where the calf in confined and there is no means of escape. You should then advance to a paddock that is flat, safe and free of obstacles and debris. Safety always comes first for both you and the calf.

You will need to begin by putting a calf halter on the calf and tying the calf to a strong post. Make sure the halter fits properly as when the calf starts to pull against the post it will escape if the halter is too loose. If it is too tight you will cause pain to the calf, which will add to the fear and confusion of what is going on.

When tying the calf up make sure the rope is not too long that it can leap and jump anywhere and possibly get hurt or caught in a fence. A rope that is too long can also get caught around the calf's legs.

Once you know the calf is safely and securely tied you should leave the calf on it's own to fight it out. You should be able to observe the calf without it seeing you so that any stress the calf is under will not be associated with you. Leave the calf for a couple of hours at a time.

This should be repeated regularly and the calf will quickly get used to it.

It is very important to be sure the halter, rope and post are all strong enough to hold the calf securely. If the calf manages to escape then it will soon learn to do it again. This will make your job much more difficult.

Once the calf is happy to be tied up it is time to start handling it. This is the time to brush, pet, massage and talk to the calf.

Brush the calf gently with a soft brush as its coat will be much softer than that of an adult.

Make the calf realise that you are not a threat and that it is not a bad experience. A tasty reward during and after each lesson is always a good move when training any animal.

This is the time that you must establish trust between you and the calf. Speak quietly and kindly to calf, do not yell or make sudden moves.

Teaching the calf to lead may take a little time as this is not something that is instinctive to cattle. The calf doesn't know what you want it to do so it will be very confused.

Very young calves are much easier to train as the strength of a smaller calf is easier to control than that of an older calf. A leading halter is recommended so that when the calf pulls back it becomes tighter around the nose and when it leads it is looser. The calf will soon recognise this.

Animals should always be led from the left-hand side. Hold the lead rope fairly closely to the halter as you don't want to have any slack in the lead rope should the calf try to run. You need to have complete control all the time even if the calf is fighting you to get away. If the calf fights too much, turn it in a tight circle to your left so that it cannot run in a straight line. This is much less tiring for you. You will become tired long before the calf, if it knows that by running in a straight line it can get away.

A very young calf can be controlled much easier. You should put one hand behind it to coax and encourage it along. Constant talking to the calf and the use of kind words always helps as you have a bond by now and the calf will know your voice. You will see the calf's ears twitch as it listens to your voice. Again **NEVER** yell at the calf. If the calf is misbehaving a firm "No" or some other command will soon be learnt by the calf. Once the calf gets the idea to walk give it lots of praise, tell it that it is good. If you have a treat in your pocket give it something as a reward. A small stick or horse rider's crop is useful to give the calf a tap from behind to help encourage it along.

With an older calf it is often easier to have two people, one to lead it and the other to walk behind with the crop or stick to encourage it along. **NEVER** hit the calf, always just give it a tap on the rump and the use of a command to walk at the same time may be used.

Do not become side-tracked, if the calf gets a fright and tries to bolt you will not be able to hold on to it and it will have learnt immediately how to escape. Do not loop the end of the lead rope around your hand as this could result in an injury to yourself. A knot in the end of the rope may serve as a good back up if it does get away and you still have hold of the lead rope. You can hold on the rope above the knot without getting hurt and then pull the calf back to you or you can let it go easily if necessary. Never risk injury to your self.

This lesson should be repeated daily. Several times a day if you have the time. Little and often is better than a few long lessons spaced apart. This will soon stick in the calf's memory if repeated constantly.

Once you are happy with the calf's progress and you can both walk together without any bother, you should then begin to walk it around the house, sheds, vehicles and other farm obstacles.

From there, if you intend to show the calf, it is a good idea to socialise the calf if possible, so that the trip to the A&P show is not too daunting when it sees a lot people, hears a lot of strange sounds and sees vehicles moving. These should not be attempted until you are confident that you are in complete control and calf trusts you.

Always remember to reward the calf after each lesson with a tasty treat and even a nice grooming.



Vaccinations

This is the cheapest form of insurance with your calves. Vaccinations are obtained from your local vet and can be administered yourself by injection. Initially this is done when the calf is 6 weeks of age and again 4 weeks later, then annually.

This vaccine immunises for Blackleg, Malignant Oedema, Black Disease, Tetanus and Pulpy Kidney etc.

De-Horning

This is a personal preference. Some Dexters are polled (have no horns) but the simplest way to de-horn is by contacting your local MAF office or vet. It is better to de-horn earlier than later. As soon as you can feel the buds get them de-horned.

Bloat

A lot of small farms do not have this problem but it is one to be aware of when the grass is lush, usually in the spring. The type of grass and the quantity they eat can cause bloat. There is a drench you can purchase, if necessary, to help prevent this problem.

Facial Eczema

Facial Eczema is something you don't see often until it is too late and only occurs in some parts of NZ at certain times of the year, ie, humid conditions after a hot dry period usually late summer/autumn. This is caused through grass being short and cows grazing low and consuming the spores, which attack the liver. Your local vet usually keeps an eye on spore counts in the grass and can be consulted when the danger period is imminent. Spore counts are often reported in rural publications. Prevention is better the cure. For treatment consult your vet.

External and Internal Parasites

There are a number of animal health remedies available for parasite control. If this is not done condition of the animal will deteriorate especially in calves. Control is recommended. Consult your vet for a regime that will suit you, your property and your animals.

Milk Fever and Grass Staggers

At about 2 or 3 weeks before calving the calcium levels in a cow can diminish and after calving mum can get milk fever. This causes the cow to go down and a vet is needed immediately. This is more prevalent in older cows. Prevention is the best option. There are a number of different remedies to prevent and treat these problems. Consult your Vet for prevention and/or treatment options.

Bovine Viral Diarrhoea

BVD is a very contagious viral disease that is spread through mucus, nasal discharge, faeces, urine, milk and semen. The clinical signs are ill thrift, poor production, higher empty rates, abortions, mummified foetuses and stillborn calves.

Calves can be born with a persistent BVD infection, which means they can never get rid of the disease. These calves spread BVD for the rest of their lives. Most persistently infected calves die within the first two years of their life.

In all situations, veterinary advice should be sought. BVD is a complex disease and there is no simple solution to this problem. Precautions can be taken by testing your animals and there is a vaccination program that in most cases keeps the disease under control.

Pulmonary Hypoplasia with Anasarca (PHA)

Pulmonary Hypoplasia with Anasarca (PHA) looks to be one of the oldest genetic mutations found in cattle. It is a lethal genetic condition caused by a recessive mutation that usually causes calves to be born dead or aborted early. The calves have undeveloped or poorly formed lungs (Pulmonary Hypoplasia) and they have lots of excess retained fluid (Anasarca) that can cause the calf to be more than twice its normal birth weight. If the calf goes full term this of course creates problems at calving and if it is not delivered by caesarian section permanent damage can be done to the cow.

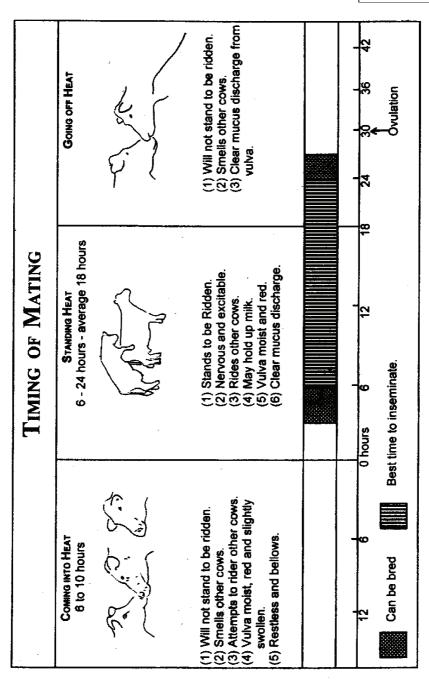
The history of PHA would seem to be from a few sires in the Maine Anjou breed of cattle but it has now shown up in the Dexter Breed and is found in other breeds.

PHA can only show up where two carriers are mated to each other and in this case there is a 25% chance of having a PHA calf every time this mating is repeated. The sire and the dam remember are carriers . . . they appear in all respects normal but for every four calves born when two carriers are mated, one will have PHA and most likely be born dead or aborted early, the other three calves will look normal but two of them will be PHA Carriers. Mating a carrier bull or cow to a non carrier bull or cow will result in 50% of the calves being PHA carriers.

Tests for both conditions are available to identify carriers.

Inheritance of Chondrodysplasia + PHA.

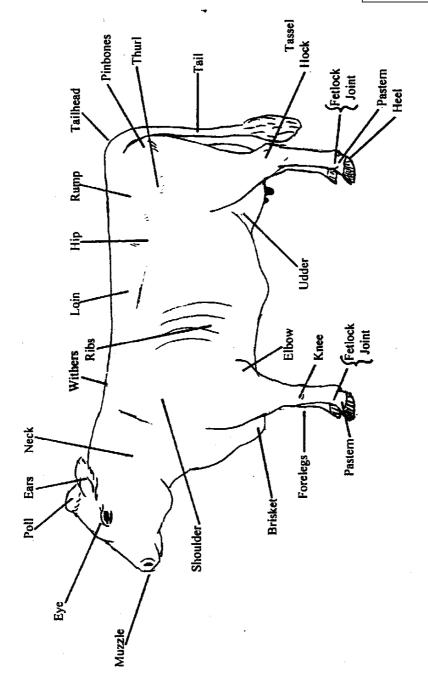
- $-N \times N = 100\% N$
- $-N \times C = 50\% N. 50\% C$
- -C \times C = 25%N, 50%C, 25% Bulldog or Waterbaby calf
- Where N = Non-carrier, C = Carrier

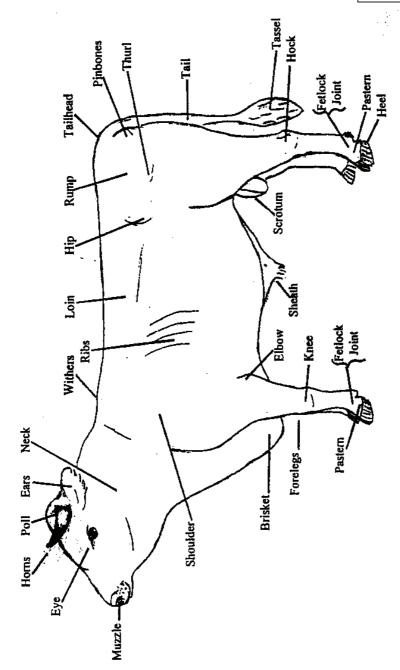


APPENDIX 2

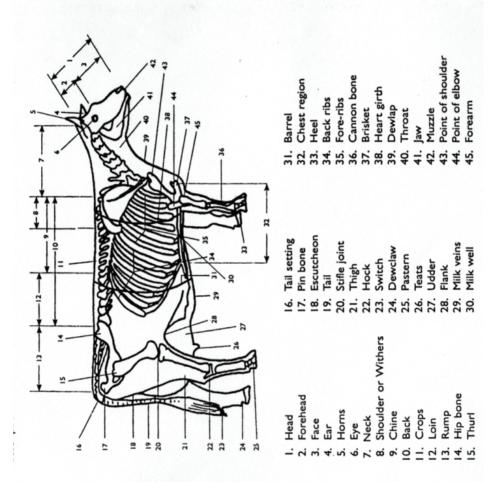
GESTATION TABLE

Mated	Jan	1	7	14	21	28
Due	Oct	9	15	22	29	5 Nov
Mated	Feb	1	7	14	21	28
Due	Nov	9	15	22	29	6 Dec
Mated	Mar	1	7	14	21	28
Due	Dec	8	14	21	28	4 Jan
Mated	Apr	1	7	14	21	28
Due	Jan	8	14	21	28	4 Feb
Mated	May	1	7	14	21	28
Due	Feb	7	13	20	27	6 Mar
Mated	Jun	1	7	14	21	28
Due	Mar	10	16	23	30	6 Apr
Mated	Jul	1	7	14	21	28
Due	Apr	9	15	22	29	6 May
Mated	Aug	1	7	14	21	28
Due	May	10	16	23	30	6 Jun
Mated	Sep	1	7	14	21	28
Due	Jun	10	16	23	30	7 Jul
Mated	Oct	1	7	14	21	28
Due	Jul	10	16	23	30	6 Aug
Mated	Nov	1	7	14	21	28
Due	Aug	10	16	23	30	6 Sep
Mated	Dec	1	7	14	21	28
Due	Sep	9	15	22	29	6 Oct





APPENDIX



APPENDIX 6

GLOSSARY

Al Artificial Insemination

ET Embryo Transplant

DCSNZ Dexter Cattle Society New Zealand Inc

DCS Dexter Cattle Society (UK)

DNA Deoxyribonucleic Acid

G1, **2**, **3**, **4**, **or 5** Grade

NAIT National Animal Identification & Tracing

NS Natural Service

PB Pure Bred

RWB Run with the Bull

TB Tuberculosis

NZ New Zealand

Phenotype These are the physical parts, the sum of the cells,

structures, metabolism, tissues, organs, reflexes and behavioUrs; anything that is part of the observable structure, function or behaviour of a living organism.

Oestrus when the cow cycles recurring every 3 weeks