

Dexter



Journal 2018 Joernaal





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The small cow with a big future / Die klein bees met 'n groot toekomst

Hoekom Dexters?

- Goeie voeromset - 5.73kg per 1kg vleis
- Goeie groei - 1.4kg per dag
- Beste koei/kalf speenverhouding van alle rasse - 55.9% teenoor 45.5% gem van land se koeikudde
- Uitstekende dubbeldoel
- Baie goeie alternatief om verse mee oop te maak in die suiwel sowel as vleiskuddes
- Swart en rooi beeste beskikbaar
- Meer vleis per Ha geproduseer. 3 Dexters in die plek van 2 grootraam beeste met goeie speengewigte
- Goeie moeders en temperament
- Baie goeie vleiskwaliteit en snitgrotes
- Baie gehard en aanpasbaar

Hoe kan jy bekostig om nie met 'n Dexter te boer nie

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**Regstellende beesras
van die toekoms**
**Affirmative cattle breed
of the future**

Doeltreffende vleis en melk bees
Essential meat and milk animal

Maklik hanteerbaar
Easy to handle

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Voorwoord

PREFACE

- Hendrik van der Westhuizen, PRESIDENT



Boere sien altyd die goeie in die slegste tye raak, en dus ook nou meer so in die strafste droogte in jare.

Dit gaan tyd vat om ons kuddes te herbou, die weiding te herstel en ons watervlakke te laat terug keer na normaal. As gevolg van die droogte het voerpriese die hoogte in geskiet en het dit in baie gevalle onbetalend geword om kuddes te voer. Ek wil daarom 'n beroep doen op elke teler om positief te bly en hom te omring met positiewe mense.

As 'n boer nie 'n optimis was nie, sou hy nie meer 'n boer kon wees nie. Dit was die woorde van Will Rogers 'n 100 jaar terug. En verseker die beste aanhaling oor die landbou in 'n eeu.

Die stoet bedryf was en sal altyd 'n kompeterende bedryf bly. Maar soos wat tegnologiese vorderings in DNA en genomika, help dit elke teler om sy kudde eksponensieel te verbeter.

As jy as stoet teler 'n liefde het vir jou Dexter beeste, hulle eerste stel bo jou eie menslike behoeftes sal sukses jou volg in jou teel program. Ons as telers het die reg om van mekaar te verskil, maar met wedersydse respek vir mekaar.

Ek glo dat daar nog baie potensiaal in Suid-Afrika se Dexter beeste is om te ontgin. Vleis kwaliteit, uitslag persentasie, koeie kalf persentasie en ons A2/A2 melk gaan maak dat die vraag na Dexter beeste in die toekoms net groter word, en ons as stoet telers daarby gaan baat.

Daar is nog skakels in die waardeketting wat ons sal moet benut. Om byvoorbeeld in die toekoms in te skakel by 'n vleisprodusent en sodoende toegang te bekom om ons supermarkte se vleisrakke.

Ek wil my gelukwense oordra aan Ockie en Sam sowel die res van die raad vir weereens 'n pragstuk van 'n joernaal. Baie dankie aan die raad vir julle toewyding, ondersteuning en harde werk gedurende die termyn.

Baie dankie aan elke teler, stoet en kommersieël wat die afgelope jare gehelp het om die Dexter beesras se gewildheid te bevorder. Dit is 'n bewys van julle passie, toewyding en geloof in hierdie wonderlike ras waarmee ons boer.

Dankie aan elke adverteerder en rubrieksrywer.

Mag die jare wat voorlê gevul wees met God se liefde en genade.

Farmers usually know how to see the good in the bad and so it has been also in the worst drought we have experienced in many years.

It will take time to rebuild our herds, restore our grazing and to return our water levels to normal. As a result of the drought, feed prices have risen to such an extent that it has become unaffordable in many instances to sustainably feed our animals. I would like to request our breeders to stay positive and to surround themselves with positive people. Will Rogers said a century ago that a farmer who is not an optimist, is not a farmer.

The stud industry is and has always been a competitive industry but as technology regarding dna and genetics improves, so does the quality of our herds.

If you as stud breeder have love and passion for your Dexters, placing them beyond your own needs, success will follow you in your breeding program. We as breeders may differ from one another but we should always do so with respect for each other.

I believe that the full potential of the Dexter in South Africa is yet to be achieved. The quality of our beef, our carcass yields, our calving percentages and our A2 milk are some of the characteristics that will continue to increase the demand for our breed to the benefit of our stud industry.

There are still links in the value chain that we can and should make use of for example the integration with meat producers in order to obtain space on the shelves of our supermarkets.

I wish to take this opportunity to congratulate Sam and Ockie as well as the remaining board members on a masterpiece of a journal and would like to express my sincere appreciation for the dedication, support and hard work our board has put into this.

Thank you to each and every one of our breeders, stud and commercial, for your commitment over the past years to achieve the ever-increasing popularity of our beloved breed. It is an accolade of your passion, dedication and faith in the Dexter.

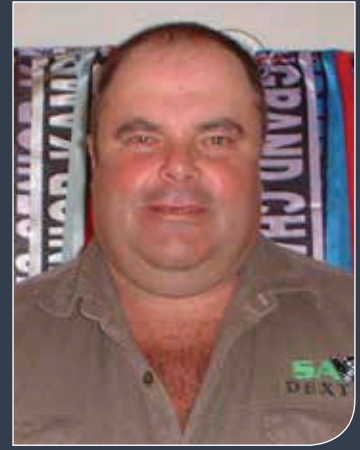
A sincere thank you also to our advertisers and the authors of the articles in this Dexter Journal of 2018.

May the Lord bless you and keep you in the years ahead.

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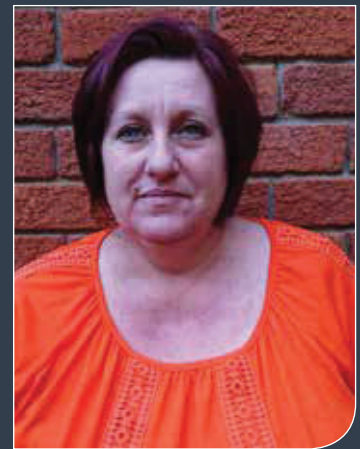
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Rasstandaarde

VIR DIE DEXTER

KLASSIFIKASIE

Die Dexter word geklassifiseer as **dubbeldoel**.

KENMERKE

KOP

Manlik: Manlik vertoon. Goeie lengte, met goeie breedte en sterk oogbanke

Vroulik: Vroulik vertoon met 'n rustige uitdrukking, met goeie lengte en breedte

Oë: Groot en helder, sonder om veel wit te vertoon

Ore: Van middelmatige grootte en wakker gedra

Neusspieël: Breed en sterk met groot oop neusgate

Kake: Skerp omlyn, breed en sterk

Tande: Groot en sterk met goeie sluiting teen die kussing van die bo-kaak

NEK

Manlik: Lank, diep en breed met goed ontwikkelde skof

Vroulik: Lank en nie so breed soos by die bul. Plooitjies is fyner as die van bul

SKOUERS

Manlik: Goed gespierd, goed aangeheg en beweeglik met 'n ronderigheid oor die kambene

Vroulik: Gladder sonder swaar bespierung

BORSSTUK

Breed

BORSOMVANG

Manlik: Breed en diep

Vroulik: Breed maar minder diep

Haasleër: Vol

Rug: Breed en reguit

Lende: Breed en vol

Ribbe: Goed gesprong

HEUPBENE

Manlik: Breed, ietwat gerond bo. Heupbene minder prominent en nie so vër uitmekaar as by vroulike diere

Vroulik: Breed, ietwat gerond bo

Kruis: Lank, breed, effe dakkig met matige helling van voor na agter met wye draibene

AGTERKWART

Manlik: Lank, breed, goed gespierd. Breed in sitbene met die wydste punt in die dye. Moet die vorm van 'n perdehoef aanneem

Vroulik: Dieper sonder die swaar bespierung

BENE EN KLOUE

Vierkantig geplaas. Goed gevormde kloue met goeie diepte agter. Breë sterk droeë skoon hakke op 'n plat beenstruktuur

KLEED

Vel en hare: Vel los en soepel met voldoende pigment, hare kort dik, sag en glansend

KLEUR

Swart, Rooi en Dun met bewys van DNA

Manlik: Beperkte wit alleenlik om skrotum.

Vroulik: Wit op die uier en beperk tot agter die nawel op die onderlyn toelaatbaar

Swart: Beperkte wit in die kwas toelaatbaar

Rooi & Dun: Oorwegend wit in die kwas toelaatbaar. Pigmentasie op die neus, ooglede en geslagsdele vleeskleurig en die hoewe amber. Beperkte rokerige pigmentasie op die neus en hoewe wel toelaatbaar

UIER EN SPENE

'n Goed gebalanseerde uier met vier funksionele kwarte. Goed na vore aangeheg feitlik gelyk met die onderlyn. Vier spene van middelmatige lengte en dikte. Uier moet nie laer as die hakke gedra word nie. Hoër agteraanhegting word verkies

GESLAGSORGANE

Manlik: Goed ontwikkel en normaal in alle opsigte. Die skrotum bevat twee eenvormige goed ontwikkelde testes, hang reguit, aan 'n relatiewe dun nek, weg van die die lyf en is bedek met sagte hare. Die skede pas netjies in by die onderlyn sonder om oormatig grof te vertoon



Klubledeys - 2018

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DEXTERS Vrystaat

Ongeveer 100 Dexter beeste jaarliks te Bloemskou
in Bloemfontein - **Einde April - begin Mei**

3 Klubvergaderings - **Oktober, Januarie, April**

Inligtingsdag - **Julie**

KLUBLEDE

Amadeus, Hendrik Strydom
Zandu, Johan Daffue en Seun
ORB, Ockie Barnard
Du Akker Eugesha, Herman Duvenhage
Tomar, Tom Heath
Kleinhoefies, Cecilia Moolman
Corbu, CB Uys
TJ, Jurg en Torrie van Aswegen
Onyx, Pieter en Wilma du Preez
Serenity Boerdery, Celeste en Albert van Zyl
Doranco, Coen van Tonder
Siebert Minnaar, Siebert Minnaar
Bella Dexters, David de Villiers
Shamdex, Gerald Jaeger/Sam Marx
Wessenhof Dexters, Hendrik v/d Westhuizen
Hendrik Potgieter Landbouskool, Christie Swarts
Naka Meno, Jaco Loots

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Sekretaresse: Celeste van Zyl | Tesourier: Mariette Heath
Addisionele lede: Gerald Jaeger, Ockie Barnard, Torrie van Aswegen



*Where things happen and profit counts!
Waar dinge gebeur en wins tel!*

Vroulik: Goed ontwikkel en sonder uiterlike tekens van infantilisme of misvorming

ALGEMENE VOORKOMS

Manlik: Manlik en robuust. Voldoende bespierung op voorarm, rug, lende en dye met 'n sterk gedefinieerde manlike skof. Beenstruktuur is relatief fyn maar sterk, met 'n goed ontwikkelde voorkwart en borsdiepte in verhouding tot lengte van lyf

Vroulik: Fyner in alle opsigte van die bul. 'n Goeie, gebalanseerde raamwerk met wigvormigheid van heup na skouers asook van die kant gesien, met die agterkwart wat dieper vertoon as die borsstuk. Gedurende laktasie is oortollige vetbedekking uiters ongewens. Oormatige vetverspreiding langs die stertwortel, op die borsstuk en in die broek en flank is ongewens

HOOGTE

Manlik: Ideaal van 120cm gemeet net voor die kruis

Vroulik: Ideaal van 112cm gemeet net voor die kruis

Ongewenste Eienskappe

- Neigings na te groot of te klein
- Duiftonigheid
- Oormatige wit in kwas of onderlyn
- Oormatige vetneerlegging op vroulike diere
- Hakke wat afwykings toon

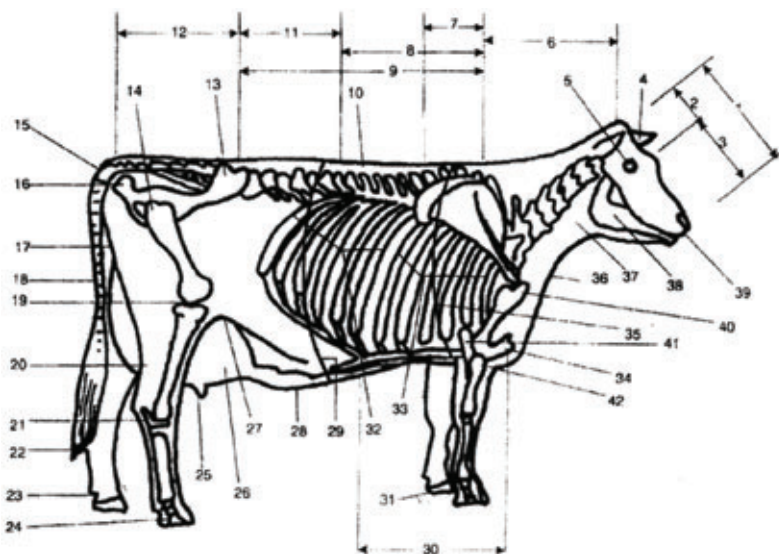
- Klein hang-uiers met oorgrootte spene
- Gedraaide skrotum
- Hol of geboë rug
- Te growwe koeie of te fyn bulle
- Bobbejaan stert by vroulike diere

DISKWALIFIKASIES

'n Diskwalifikasie is 'n afwyking wat 'n dier ongeschik maak vir stoetteling:

- Enige van Ongewenste Eienskappe (15) indien dit in 'n ekstreme graad voorkom
- Regop-hakkigheid
- Infantiele of misvormde geslagsorgane
- Enige tekens van sub-fertiliteit
- Kleur mengsels
- Skewe stert
- Lang onderkaak
- Kort onderkaak
- Skewe gesig
- Duiwelsgreep
- Swak Temperament
- Te klein testis
- Bobbejaan stert by manlike diere

DELE VAN DIE BEES



1. Kop	15. Stertwortel	29. Buik
2. Voorkop	16. Sitbeen	30. Borsstrook
3. Gesig	17. Melkspieël	31. Hoef
4. Oor	18. Stert	32. Agterribbe
5. Oog	19. Agterknie	33. Voorribbe
6. Nek	20. Dy	34. Bors
7. Skouer	21. Hak	35. Borsomvang
8. Kambeen	22. Stertkwas	36. Keelvet
9. Rug	23. Byklou	37. Keel
10. Haaslêer	24. Kootgewrig	38. Kakebeen
11. Lende	25. Speen	39. Neusspieël
12. Kruis	26. Uier	40. Skouerknop
13. Heupbeen	27. Flank	41. Elmoog
14. Draaibeem	28. Melk-aar	42. Voorarm



fokus OP DEXTER BEESTRAS

klein ras met GROOT moontlikhede

- Ockie Barnard, ORB DEXTERS

Agtergrond oor Dexter-Beesras in SA:

Die rekords van die Departement van Landbou dui aan dat die eerste invoere van Dexter beeste, deur mev A.I. Conway, Firwoods, Paarl, Kaap-provinsie, gedoen is. Die bul, La Mancha Chief, vanuit die kudde van mnr. R.T. Robertson, Malahide, Co. Dublin, het in 1917 hier arriveer. Verdere invoere het plaasgevind in die jare 1921,1936,1938 en ook later jare. Die ras het sy oorsprong in Ierland gehad en daar word geskryf dat die ras reeds in die 16de eeu al bekend was. Dit maak dit waarskynlik dan een van die oudste beesrasse ter wêreld.

Die eerste Dexter-beeste was veral gewild onder die Merino skaapboere van die Karoo; volgens oorlewering het hulle dit hoofsaaklik gebruik om hanslammers groot te maak. (Soms het blykbaar tot soveel as 4 tot 6 lammers aan 'n Dexter-koei gedrink!)

Die stigtingsvergadering is in 1953 te Colesberg gehou, waar die SA Dexter-Beestelersgenootskap van SA dan tot stand gekom het.

Wanneer 'n mens boer, is dit wys om sover moontlik die volle waardeketting te benut. Die doel van hierdie artikel is om telers en voornemende telers te laat besin oor hoe om maksimum wins uit Dexters te bewerkstellig.

1. Die Dexter is die ideale dubbeldoel ras.

o Die Dexter-koei produseer 10 x haar liggaamsmassa in melk per laktasieperiode en speen dan nog 'n kalf van 52% en meer, van haar liggaamsmassa. (Die gemiddelde speenpersentasievandieheleRSAsebeeskudde is maar 45,5%.) (Mnr. Herman Duvenhage, sr. Interras-beoordelaar se kommentaar op p.28 in die 2015 Dexter Joernaal)

- Verder berig mnr. Johan Daffue op p.25 in dieselfde 2015 Dexter-joernaal, dat as 'n mens die koeie soggens melk en dan saans die kalwers apart hou van die koei, word daar ongeveer 5 tot 8 liter melk per koei produseer. As 'n mens die laktasietydperk op 200 dae bereken en jy verkoop melk teen bv. slegs R6 per liter, genereer so 'n koei ongeveer R6 000 tot R8 000 in melkverkope - en word 'n kalf van 160kg (selfs tot soveel as 210kg en nog meer) gespeen. As die speenkalf dan teen 'n absolute minimum prys van R28/kg verkoop word (Oktober 2017 - speenkalfprys is R35/kg vir grootraam vleisbeeste), genereer die kalf nog R4 480 (per 160kg kalf) en selfs R5 880 (per 210kg kalf) addisioneel. Die berekende basisvlakinkomste per Dexter-koei word dus beraam op R10 480 tot R11 580 plus per jaar vanaf die 2de jaar in kalwing.
- Aangesien 'n mens met 3 Dexters boer in die plek van 2 GVE (Grootvee-eenhede word volgens die Landbou Navorsingsraad van SA bereken op beeste wat 450kg weeg), moet die vleisrasteler dus sy speenkalfers teen R15 720 (R10 480 x 3 deel deur 2) tot R17 370 (R11 580 x 3 deel deur 2) verkoop om hiermee te kompeteer.

o Daar kan natuurlik teenargumente wees wat betref melkverkope, maar ek het reeds met groot sukses varke begin groot maak met die ekstra melk. 'n Mens moet steeds varkmeel - of afvalkos - vir die varke gee, maar met die melk is hulle minder daarvan afhanklik. My persoonlike ondervinding is dat hul floreer op die melk. Alternatiewelik kan hanskalwers, of

ORB Dexters

BREEDER OF RED & BLACK DEXTER CATTLE



Beauty, SP (0083238337) birth date 24/02/2016.
Toddler Champion at Bloem Show 2017.



Mandie, SP (0079417317) birth date 17/4/2014.
ICP of 315 days. Snr and Female Breed Champion
as well as Snr Udder Champion at Royal Show
2017.



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hanslammers, met die Dexter-melkgrootgemaak word.

- Die berekenings sal hier wissel na gelang van die koste van die ekstra voer (meel of afvalkos), maar ek het 4 speenvarkies grootgemaak en nadat ek 1 geslag het op 4,5 maande, het sy inkomste (52 kg geslag teen R30/kg) reeds al 4 varke se uitgawes gedek. Ek moes slegs 4 sakke varkmeel koop gedurende die tydperk. (Ek het wel ook afvalkos gegee en nie slegs die meel nie.)
- o Iemand soos Piet Botes van Stihou Dexters het aan my vertel dat hy melkkalwers inkoop van omliggende melkboere en dan 1 saam met die koei se eie kalf soog vir 3 maande, dan weer 2 hanskalwers aan die koei soog vir nog 3 maande en dan nog 1 vir die laaste tydperk van haar laktasie. Dus maak 1 Dexter-koei 5 kalwers groot. Dit verg uiteraard goeie bestuur, want die 2 kalwers moet nie gelyktydig aan die koei drink nie, maar om die beurt aan 2 spene elk.
- Op veilings gaan sulke speenkalwers maklik R1 000 tot R1 500 stuk en kan die Dexter-boer dus op hierdie manier R4 000 tot R6 000 ekstra genereer uit die koei. As ek dan weer bostaande somme gebruik, genereer die koei tussen R8 480 (R4 480 plus R4 000) en R11 580 (R5 580 plus R6 000) per jaar.
- o Die som sal ook baie winsgewend wees met hanslammers. Hanslammers is nie oral in ons land beskikbaar nie en ek het dus nie die somme op papier bereken nie. Ek het egter al self - met groot sukses - my eie hanslammers op Dexter melk grootgemaak.
- o Die geheim is om kreatiewe planne te maak om meer winsgewend te boer.
- o As die Dexter koei egter nie gemelk word nie, kan die volgende vergelyking steeds getref word, nl. 3 Dexter kalwers teen speengewigte van 160kg = 480kg. Dit vergelyk uitstekend teen 'n ander beesras se 2 kalwers, wat saam dan 480kg moet weeg! (Min ander beesrasse sal hierdie uitdaging aanvaar!) Dus produseer Dexters meer vleis per hektaar as meeste ander beesrasse.
- In hierdie som – indien dieselfde syfers gebruik word - kan die Dexter dus $480\text{kg} \times R28 = R13\ 440$ tot $R17\ 640$ ($210\text{kg} \times 3 \times R28$)

produseer en sal die vleisrasse dus kalwers teen R6 720 tot R8 820 moet bemark. Dit beteken dat hul kalwers gespeen moet word vanaf 192kg tot 252kg, indien ek R35 per/kg vir hul speenkalwers bereken.

- Daar is egter Dexter-boere wat heelwat meer verdien as hierdie R28 per/kg, wat ek as voorbeeld gebruik. Ek weet van minstens 3 boere wat dieselfde pryse vir hul speenkalwers kry, as die boere van ander beesrasse. Hulle het self 'n mark vir hul speenkalwers gaan soek.

2. Langlewendheid en vrugbaarheid

- o Dexter-verse word reeds vanaf so jonk as 14 tot 15 maande by die bulle gesit en die algemene vrugbaarheid van Dexter-koeie is welbekend.
 - Die verse kalf dan op 23 - 24 maande as hul op 14 - 15 maande gedek is. Indien die eerstekalkoei goed versorg word en ekstra voeding ontvang, produseer sy haar 2de kalf wanner die ander rasse se beeste die eerste keer kalf. Maak hier maar self die somme.
 - In 2008 het Coen van Tonder van Doranco Dexters 'n Dexter-bul met 10 Simbra verse gepaar. Almal was met die eerste dekking dragtig. Die gemiddelde geboortegewig was 31kg. Toe die kalwers in 2009 op 210 dae gespeen is, het hul tussen 193kg en 234kg geweeg. Uitstekend, wanneer in ag geneem word dat hierdie diere die eerste keer op 33 maande sou gekalf het. Hulle het egter op 33 maande vir n tweede keer gekalf (van 'n Limousin-bul).
- o Die volgende koeie het diep spore getrap in die Dexter bedryf. Die geld wat hierdie koeie vir hul eienaars genereer het, is baie moeilik meetbaar, maar as 'n mens hul nageslag in ag neem, was dit beslis baie winsgewend om met hulle te boer:
 - 'n Dexter-koei, Rozaka Adriana van Doranco Dexters (gebore in 1983 en deur die weerlig doodgeslaan in Augustus 2004) het 'n ouderdom van 21 jaar en 4 maande bereik en het 19 kalwers in haar lewe geproduseer. Sy het aan beide vroulike- en manlike kant 'n hele paar kampioene die lig laat sien en was self n paar keer Vrystaat en SA Kampioen. Sy was ook die ouma van Amadeus Fred, wat

teen 'n huidige SA-rekordprys van R100 000 verkoop is.

- Nog 'n Dexter-koei, Kortman Toetsie van mev. Enid Stolz het op Bloemskou 2014 'n eerste plek behaal (die koei was toe 15 jaar oud) en was daar 17 van haar nageslag wat aan dieselfde skou deelgeneem het en puik prestasies gelewer het. Haar kinders en kleinkinders het al baie kampioene opgelewer.

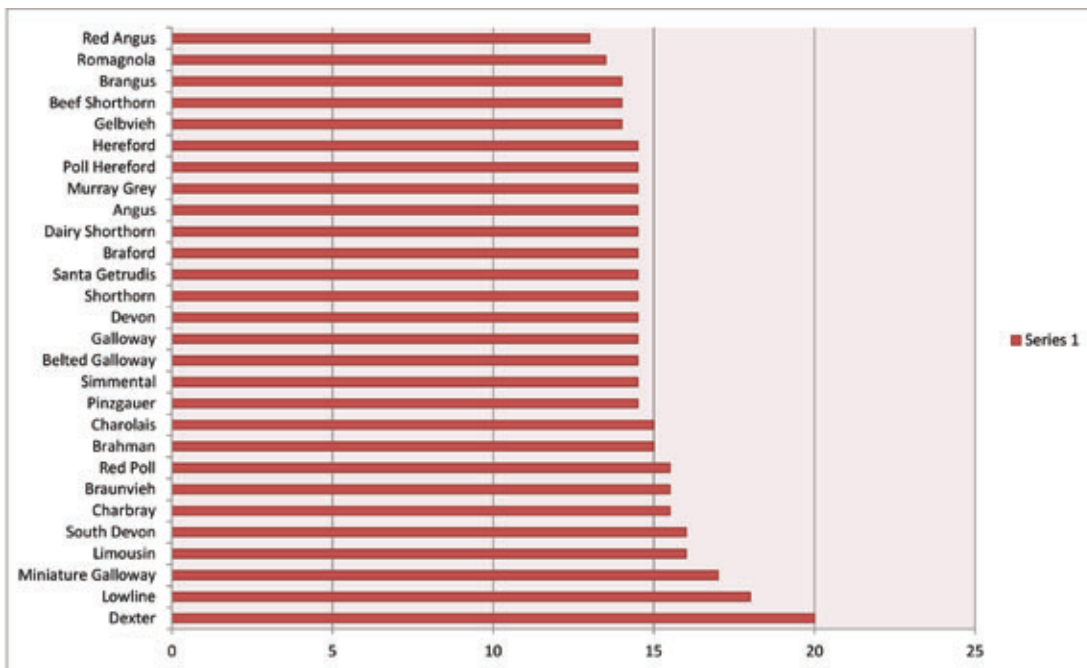
3. Die Dexter se vleisgehalte

- o In die RSA is baie min mense regtig bekend met die besondere gehalte van Dexter-vleis. In Australië en die Verenigde Koninkryk is daar egter restaurante wat dit pertinent adverteer. In die eerste plek is dit die ideale porsiegrootte vleisdikte kombinasie. As u 'n porsie biefstuk bestel en dit is dun gesny, verloor 'n mens al die sappigheid van die vleis! Met 'n lekker Dexter biefstuk, gaan dit beslis nie gebeur nie.
- o 'n Interessante kenmerk van die vleis, is die donker kleur daarvan. Vleiskenners weet dat

'n ligte kleur vleis 'n teken is van sagtheid - en donkerder vleis weer 'n teken van smaak en geurigheid. Die donkerder vleis van selfs jong diere, by Dexters, kombineer dus hierdie voortreflikhede en ek kan u waarborg dat as u eenmaal Dexter-vleis geproe het, u nie graag weer ander vleis sal wil eet nie.

- o 'n Verdere kenmerk van Dexter-vleis, is die goeie marmering van die vleis, wat 'n aanduiding is van die sagtheid. Marmering word egter meer prominent hoe ouer die diere is, en is meer opmerklik, soos ook by ander rasse, by 18 maande- en ouer diere.
- o Die Dexter se oogspier, wat verband hou met vleis- teenoor beenverhouding, is heelwat beter as dié van die meeste ander beerrasse en maak dat dit ook baie voordelig is om Dexters te slag. (Sien hieronder die spiervershouding van die Dexter-ras, teenoor ander beerrasse):

4. EMA (in sq cm) per 100kg of bodyweight – Breed Average



This chart consists of data from the 2003 Sydney Royal and the 2003 & 2007 Melbourne Royal Shows. It is compiled from 1091 Bulls representing 31 breeds over all three Shows.

LUNDI

Deater Stoet



Lundi Karien

10 jaar oud met 10 kalwers

Raskampioen koei, Willem Prinsloo 2017
Opperste kampioen, Willem Prinsloo 2017

Kobus Van Der Linde

Sel: 082 783 9605 Epos: lundi@lantic.net

- o Ek bemark al my Dexter-vleis self en verkoop aan privaathuishoudings. Hier onder volg my bloktoets op 'n karkas met die verkoopprijs en wins gemaak deur self die vleis te verkoop. (Datum van toets: 15 Julie 2017)

BLOKTOETS OP DEXTER BULLETTJIE WAT GEVOER WAS (ORB DEXTERS)								
NA 1 WEEK	156.9	Kg	165.8	Kg nat gewig	GEWIGSVERLIES	8.9	kg	5.37%
Prys per kg			Markprys A2	R 45	7,237.17	Markprys		
SNITTE	Gewig/kg		v/Prys per/kg	Waarde	Verdere beskrywing/inligting			
Goulash/blokkies	7.5		100	750	Uit Binneboud (Topside)			
Nek	4		60	240	Ekstra vleis afgesny			
Skeen (Shin)	3		60	180	Slegs Pypbene			
Fillet	3.3		140	462	Slegs Kop (boonste) gedeelte			
Kruisskyf (Rump)	5.7		120	684	Heel of porsies			
Maalvleis	49		65	3185	Minder vet as worsvleis (90/10 verhouding)			
Platrib	4.1		60	246	Gedeelte van agterkwart			
T/been en Voorrib (Club)	11.7		100	1170	Verpak 2 saam			
Bene	26		11	286	Nie te kaal bene nie			
Binne Vet	6		5	30	Gebruik in goedkoop wors			
Wors	22		60	1320	80/20 Vleis. Verkoopprijs vir wors R75 per/kg sluit derms en speserye in			
Burgers (Patties)	10		60	600	80/20 Vleis. Verkoopprijs vir Burgers R60 per/kg sluit speserye in			
Hondekos	4.6		1	4.6	Senings, ens. Baie streng hieroor en gooi dalk baie meer weg as nodig.			
	156.9			9157.6				
Min: Arbeid				300	2 arbeiders vir dag			
Vervoer: Slagpale toe en weer gaan haal				100	Dieselkoste			
Netto				8757.6				
Ekstra inkomste om dus self vleis te bemark				1,520.43				

- Ek wil hier graag noem dat daar verseker abattoirs is wat sal penaliseer op die gewig van die karkas, aangesien hul karkasse van meer as 170kg verkies vir A grade - en by 'n abattoir sou ek nie R45 per/kg vir hierdie karkas gekry het nie. Die koste van die voer is egter nie hierby ingereken nie. Ek wil dit stel dat indien jy self op hierdie manier jou beeste afrond en dan die vleis bemark, dit suiwer is om te verseker dat jy nie minderwaardige pryse vir jou karkas kry nie.
 - As jy egter die Dexter-beeste in 'n tipiese voerkraal opset voer, soos wat ons in die Vrystaat by Jan Manser van FFG Voere in 2016 gedoen het, kry jy uitstekende resultate. Let wel: Jan Manser bedryf 'n voerkraal en het die diere vir ongeveer 4.5 maande gevoer met 'n baie hoë proteïenvoer - en nie die tipiese voer deur voermaatskappye verskaf nie.
- o Hier volg die slaggewigte, asook uitslagpersentasie van die Dexter-osse wat ons by Jacobsdal Slagpale laat slag het:

GEWIGTE VAN EERSTE GESLAGTE DEXTERS -VOERKRAAL JAN MANSER				
NR	LEWENDIG	NAT	MIN 3%	UITSLAG%
CF1437	420	279,75	271,60	64,67%
ORANJE	340	238,14	231,20	68,00%
GROEN	350	233,40	226,60	64,74%
CF1412	390	264,92	257,20	65,95%
CF1439	375	254,00	246,60	65,76%
CF1412	395	265,74	258,00	65,32%
CF1504	395	265,74	258,00	65,32%
540	320	221,45	215,00	67,19%
77	420	297,77	289,10	68,83%
	3405		2 253,30	66,18%

J.A.K Strydom Dexters



FRED

Om net die beste genetika aan ons kopers te voorsien, het ons verlede jaar vir Fred (foto bo), 2015 se Interras Dubbeldoel S.A. Kampioen Bul, sowel as die kleuter S.A. Kampioen vers, by ons kudde gevoeg, teen beide S.A. rekord pryse.

Hoekom Dexter?

- Goeie voeromset met goeie GDT.
- Beste Koei / Kalf speenverhouding van alle rasse.
- Uitstekende dubbeldoel (vleis & melk).
- Baie goeie alternatief om verse mee oop te maak in die suiwel sowel as vleis kuddes.
- Swart & Rooi beeste beskikbaar.
- Meer vleis per Ha geproduseer. 3 Dexters in die plek van 2 grootraam beeste met goeie speengewigte.
- Goeie Moeders en temperament en maklik hanteerbaar.
- Baie goeie vleiskwaliteit en snitgrotes.
- Baie gehard en aanpasbaar. Kan ekstensief en intensief geboer word.
- Versoenbaar met skaap en wildboerdery. Nie kieskeurige vreters.
- Maak ekonomies sin - vleis per ha geproduseer.

Prestasietoetsing

- Om Top genetika in ons kudde te identifeseer.
- Om goeie genetika aan ons kliënte beskikbaar te stel.
- As bestuurshulpmiddel om die volle potensiaal uit ons kudde te haal.



J.A.K. Strydom Dexters - Kudde beleid

- Om die dubbeldoel eienskappe te verbeter, maar nie tenkoste van die ander een.
- Ten minste 'n 55% koei / kalf speenverhouding.
- Elke koei, elke jaar 'n kalf grootmaak.

Jak Strydom: 083 657 4001 | e-pos: strydomjak@telkomsa.net

Bestuurder - Jaco Mortlock: 082 552 4843 | Tel.: 051 633 2287 | Faks: 086 623 1441

web tuiste: www.jakstrydom.com | Posbus 421, Aliwal-Noord, 9750

- o Al bogenoemde beeste se gewig het verdubbel in die tydperk wat hul in die voerkraal was: een, 'n A2 (jonger as 24 maande) en die ander AB2 (net oor die 24 maande). Let wel: Die 2- gradering beteken dat dit nie oormatige vetneerslag het nie, ondanks die 4.5 maande se voer. Dit word verkry met 'n produk genaamd Zilmax, gebruik deur meeste voerkrale.
- o Christo Venter van Spree Dexters bedryf sy eie 'voerkraal' vir sy Dexter-osse en bulle en het aanvanklik normale beesvoer aangekoop. Hy meng egter nou sy eie voer, bespaar op die koste en verkry ook beter groei. Sy gemiddeld per dier is 1.21kg per dag. Hy meng 100kg ruvoer met 150kg SB100 en 650kg meliemeel. Die voerkoste beloop R2.27 per kg. Tans (Oktober 2017) het hy 8 osse in sy voerkraal en hul verbruik R1 470 se kos per week. Gegewe hulle gewigstoename (teen slegs 50% slagpersentasie) kan 'n mens dit omskakel na R2 200 per week, dus R730 wins per week. (Arbeidskoste is nie hierby ingereken nie!)
 - Prestasies van die Dexter-telers wat skou en bemark
- o Vir etlike jare reeds is die Dexter-ras bekend as 'n gedugte teenstander in die skou-ring in die interraskampioenskappe. In 2014 was 'n Dexter-bul, Amadeus Fred, van Hendrik Strydom van Amadeus Dexters ook aangewys as die opperste kampioenbul tydens Nampo. Hendrik behaal a.g.v. hierdie prestasie besonder hoë pryse op veilings en hou tans (2017) die rekordpryse vir Dexters: R100 000 vir 'n bul en R45 000 vir 'n vroulike dier.
- o Die telers wat skou, behaal deurlopend die beste pryse gewoonlik op veilings. Tydens die Overvaal-veiling van 2017, was daar heelwat diere wat verkoop het vir meer as R10 000 stuk. By hierdie veiling was 'n teler van 'n ander ras teenwoordig. Hy het aan Kobus Van Der Linde van Lundi Dexters opgemerk, dat dit ook maar die pryse is wat ander beesrasse behaal en dat die Dexters nie minderwaardige pryse teenoor ander rasse op veilings behaal nie.
- o Wanneer 'n mens die voer wat 'n Dexter verbruik, vergelyk met dié van 'n grootraam bees, is dit weereens 'n bewys dat dit baie winsgewend is om met Dexters te boer. Om weer die verhouding van 3 Dexters teenoor 2 GVE te gebruik, moet ons na regte R10 000 vir 'n Dexter opweeg, teenoor R15 000 dan van 'n ander groter ras.
 - Die Dexter is gehard en kom in alle dele van Suid-Afrika voor
- o Die Dexter-ras het hom onderskei in alle veldtoestande regoor die RSA. Daar is Dexter-telers in die Wes-Kaap, Oos-Kaap, KZN, Limpopo, Mpumalanga, Gauteng, Vrystaat en Noordwes. (Dus is hul aanpasbaar in die grasvelde, sowel as die dorre dele van ons land.)
- o Tydens die 2015/16 landwyse droogte, het Coen Van Tonder, Christo Venter en Winett Mackenzie in die Vrystaat 'n studie gedoen met jong bulle om te kyk hoe gehard hul is. Tydens die toets, is slegs 'n lek (bestaande uit 10 sakke sout, 1 sak fosfaat en 2 sakke molassemeel) gegee en moes die bulle maar van die karige weiding leef. Die uitslae het selfs ons Dexter-boere verbaas en wys op die puik groeipotensiaal, asook die gehardheid van die ras.
 - Daar was 13 bulle (tussen 7 en 9 maande oud) in die toets. Die toets het verloop vanaf 16 Nov 2015 tot 2 Mei 2016. Die bulle is elke 2de week op dieselfde tyd van die dag geweeg. Die boere het NIE geselekteerde bulle gevat nie, maar voor die voet, om sodoende 'n beter gemiddeld vir die ras te kry. Die swakste GDT oor die totale tyd was 345g/dag en die beste GDT oor die totale tyd was 583g/dag. Die gemiddelde GDT oor die totale tyd was 441g/dag. Die bul wat die minste gewig opgetel het tydens die eksperiment, was 58kg en die meeste gewig opgetel het, was 98kg. Die gemiddelde gewig opgetel tydens die eksperiment was 76.84kg.
 - Bogenoemde is baie goeie syfers, veral in ag genome dat dit van die ergste droogtes was, wat ons land in menseheugenis beleef het.
- o Daar is heelwat Dexter-telers wat deelneem aan die Fase C kompetisies wat by die LNR gedoen word. Ook hier onderskei die Dexter homself. Voeromsette van tot 5.73kg voer per 1kg vleis - en groei van tot 1.4kg per dag word hier verkry!
 - Die Dexter het 'n ongelooflike sagte temperament en is maklik hanteerbaar
- o Toe ek met Dexters begin boer het, het ek slegs 'n drukgang vir die skape gehad. Ek gebruik steeds dieselfde drukgang, met die toevoeging van 'n weegbrug en kopklamp. Ek glo aan die gesegde: 'om te weeg/meet is om te weet.' Die res van die drukgang is nog net soos dit was. (Tydens skoue is dit opmerklik hoe van die telers se klein kindertjies sommer self die beste rondlei - en soms ook op hul sit.)

- o U hoef dus geen duur toerusting aan te koop, indien u besluit om Dexters aan te skaf nie. Beeshanteringskrale vir groot beeste sal 'n mens maklik R50 000 plus, uit die sak jaag. Met Dexters kan 'n mens met veel minder oor die weg kom.
 - Goeie nuus vir die gesondheidsbewuste verbruiker.
- o Daar is heelwat Dexter-telers wat hul vleis self bemark, asook slaghuise wat dit begin bemark weens die toenemende aanvraag. Heelwat Dexters is vrylopend en word nie met allerhande bymiddels vetgevoer nie, maar word van die plaas af direk na die slagpale gestuur.
- o 'n Tendens wat ook nou in die RSA posgevat het, is om die Beta-Casein in die melk te laat toets. Vir die oningeligte: Indien die melk A2A2 toets, is dit uiters gesonde melk. A1A1 melk is weer ongesonde melk. Daar is reeds bewyse dat die opium-derivaat, genaamd BCM7 in A1A1 melk, chemies amper identies aan glutien is. Maar waar glutien net op drie areas van die brein bind en ons siek maak, bind BCM7 op 45 plekke op die brein. Daar is reeds suksesse met die toetsing vir A2A2 melk, maar hier staan die Dexter-bedryf nog in sy kinderskoene. Van

hierdie telers, wat reeds toetse gedoen het vir A2A2 melk, kan hul melk nou as sodanig bemark. Die telers wat reeds hierdie toetse laat doen het, is David Visser van Floramanzi Dexters, Frank Hinze van Minimoo Dexters, Moira Hampson van Dexters at Tori Raine - en die uwe, Ockie Barnard, van ORB Dexters.

- Kreatiewe plan saam met kleinwild
- o Die wildboere sukkel veral met die beheer van bosluise in die Limpopo. 'n Boer in daardie omgewing, Arnaud le Roux van Le Petit Dexters, het 'n vindingryke plan gemaak om Dexters te gebruik om eerstens die gras te 'sny' sodat die kleinwild dit beter kan beweie - en ten tweede, om die bosluise te beheer, want hy haal net die Dexters uit die kamp en bespuit hul en sodoende word die bosluise grootliks onder beheer gebring.
- o Le Roux slaag met bogenoemde strategie daarin om meer winsgewend te boer, deurdat hy parasiete soos bo vermeld beheer - en terselfdertyd 'n ekstra inkomste uit die Dexters kan genereer.

U moet uself dus die vraag afvra: **“KAN EK BEKOSTIG OM NIE MET 'N DEXTER TE BOER NIE?”**

Wesrand Dexters Studiegroep

Ons doelstelling is om met eerlike en opbouwende debat die Dexter beesras te verbeter en te bemark ten opsigte van:

- Teelwaardes,
- Kudde gesondheid en
- Boerdersy ondersteuning en samewerking.



Stilhou Dexters	- Piet Botes	072 206 2609
Tuberflora Dexters	- Spannie de Jong	083 292 7014
The Cabin Dexters	- Toy de Klerk	082 559 8833
Tekoah Dexters	- Anne Anholts	084 575 0020

Ons Dexters is van die mees produktiewe dubbeldoel beesrasse ter wêreld!



skou UITSLAE 2015 & 2016

Hertzogville 2015

Senior Kampioen Vroulik	Coen van Tonder (Doranco)
Reserwe Snr Kampioen	Wilma du Preez (Onyx)
Junior Kampioen Vroulik	Coen van Tonder (Doranco)
Reserwe Jnr Kampioen	Wilma du Preez (Onyx)
Kleuter Kampioen Vroulik	Ockie Barnard (ORB)
Reserwe Kleuter Kampioen	Sam Marx & Gerald Jaeger (Shamdex)
Groot Kampioen Vroulik	Coen van Tonder (Doranco)
Reserwe Groot Kampioen	Ockie Barnard (ORB)
Senior Kampioen Manlik	Coen van Tonder (Doranco)
Junior Kampioen Manlik	Coen van Tonder (Doranco)
Reserwe Jnr Kampioen	Wilma du Preez (Onyx)
Kleuter Kampioen Manlik	Coen van Tonder (Doranco)
Groot Kampioen Manlik	Coen van Tonder (Doranco)
Reserwe Groot Kampioen	Coen van Tonder (Doranco)

Jakaranda 2015

Senior Kampioen Vroulik	Zandu (JJ Daffue & Seun)
Res Snr Kampioen	Zandu (JJ Daffue & Seun)
Junior Kampioen Vroulik	Aljari (WJA Nel)
Reserwe Jnr Kampioen	ORB (OP Barnard)
Groot Kampioen Vroulik	Zandu (JJ Daffue & Seun)
Senior Kampioen Manlik	Amadeus (HJ Strydom)
Reserwe Snr Kampioen	Zandu (JJ Daffue & Seun)
Junior Kampioen Manlik	Amadeus (HJ Strydom)
Reserwe Junior Kampioen	Zandu (JJ Daffue & Seun)
Groot Kampioen Manlik	Amadeus (HJ Strydom)
Reserwe Groot Kampioen	Zandu (JJ Daffue & Seun)

Bloemfontein 2015

Senior Kampioen Vroulik	JJ van Aswegen (TJ Dexters)
Reserwe Snr Kampioen	JJ Daffue & seun (Zandu)
Junior Kampioen Vroulik	JW Morrison (Mohimba)
Reserwe Jnr Kampioen	JJ Daffue & seun (Zandu)
Kleuter Kampioen Vroulik	JJ van Aswegen (TJ Dexters)
Reserwe Kleuter Kampioen	JJ Daffue & seun (Zandu)
Groot Kampioen Vroulik	Torrie van Aswegen (TJ Dexters)
Reserwe Groot Kampioen	JW Morrison (Mohimba)
Senior Kampioen Manlik	H Strydom & seuns (Amadeus)
Reserwe Snr Kampioen	JJ Daffue & seun (Zandu)
Junior Kampioen Manlik	H Strydom & seun (Amadeus)
Reserwe Jnr Kampioen	CF van Tonder & seun (Doranco)
Kleuter Kampioen Manlik	JJ Daffue & seun (Zandu)
Reserwe Kleuter Kampioen	H Strydom & seuns (Amadeus)
Groot Kampioen Manlik	H Strydom & seuns (Amadeus)
Reserwe Groot Kampioen	H Strydom & seuns (Amadeus)

Hertzogville 2016

Junior Kampioen Vroulik	Sam Marx & Gerald Jaeger (Shamdex)
Reserwe Jnr Kampioen	Coen Van Tonder (Doranco)
Kleuter Kampioen Vroulik	Coen Van Tonder (Doranco)
Reserwe Kleuter Kampioen	Ockie Barnard (ORB)
Groot Kampioen Vroulik	Coen Van Tonder (Doranco)
Reserwe Groot Kampioen	Sam Marx & Gerald Jaeger (Shamdex)
Junior Kampioen Manlik	Coen Van Tonder (Doranco)
Kleuter Kampioen Manlik	Coen Van Tonder (Doranco)
Groot Kampioen Manlik	Coen Van Tonder (Doranco)
Reserwe Groot Kampioen	Coen Van Tonder (Doranco)

Hertzogville 2015



GROOT KAMPIOEN VROULIK
Doranco Myra CF Van Tonder en seun



GROOT KAMPIOEN MANLIK
Doranco Milco CF Van Tonder en seun

Bloemfontein 2015



GROOT KAMPIOEN VROULIK
Kleinhoefies Nadine JJ van Aswegen



GROOT KAMPIOEN MANLIK
Amadeus Fred HJ Strydom en seuns

Jakaranda 2015



GROOT KAMPIOEN VROULIK
Zandu Thalia JJ Daffue & seun



GROOT KAMPIOEN MANLIK
Amadeus Fred HJ Strydom & seuns

Hertzogville 2016



GROOT KAMPIOEN VROULIK
Doranco Enista CF van Tonder



GROOT KAMPIOEN MANLIK
Doranco Menco CF van Tonder

skou UITSLAE 2016

SA KAMPIOENSKAPPE Bloemfontein 2016

VROULIKE KAMPIOENSKAPPE

10 Jaar + (In Melk)	JJ Daffue & Seun (Zandu)
10 Jaar + (Droog)	CB Uys (Corbu)
7 – 10 Jaar (In Melk)	Ockie Barnard (ORB)
7 – 10 Jaar (Droog)	Wilma Du Preez (Onyx)
5 – 7 Jaar (In Melk)	JJ Van Aswegen (TJ)
5 – 7 Jaar (Droog)	JJ Daffue & Seun (Zandu)
3 – 5 Jaar (In Melk)	J Morrison (Mohimba)
3 – 5 Jaar (Droog)	Sam Marx & Gerald Jaeger (Shamdex)
Senior Uier	HJ Strydom (Amadeus)
Senior Kampioen Vroulik	JJ Daffue & Seun (Zandu)
Reserwe Snr Kampioen	JJ Van Aswegen (TJ)
30 – 36 Maande (In Melk)	Sam Marx & Gerald Jaeger (Shamdex)
24 – 30 Maande (In Melk)	JJ Van Aswegen (TJ)
24 – 30 Maande (Droog)	Wilma Du Preez (Onyx)
18 – 24 Maande (In Melk)	Ockie Barnard (ORB)
18 – 24 Maande (Droog)	CB Uys (Corbu)
Junior Uier	Sam Marx & Gerald Jaeger (Shamdex)
Junior Kampioen Vroulik	Sam Marx & Gerald Jaeger (Shamdex)
Reserwe Jnr Kampioen	JJ Van Aswegen (TJ)
15 – 18 Maande	HJ Strydom (Amadeus)
12 – 15 Maande	JJ Daffue & Seun (Zandu)
9 – 12 Maande	JJ Daffue & Seun (Zandu)
6 – 9 Maande	JJ Daffue & Seun (Zandu)
Kleuter Kampioen Vroulik	HJ Strydom (Amadeus)
Reserwe Kleuter Kampioen	JJ Daffue & Seun (Zandu)
Groot Kampioen Vroulik	JJ Daffue & Seun (Zandu)
Reserwe Groot Kampioen	Sam Marx & Gerald Jaeger (Shamdex)
MANLIKE KAMPIOENSKAPPE	
7 – 10 Jaar	Wilma Du Preez (Onyx)
5 – 7 Jaar	JJ Daffue & Seun (Zandu)

4 – 5 Jaar

Senior Kampioen Manlik	HJ Strydom (Amadeus)
Reserwe Snr Kampioen	JJ Daffue & Seun (Zandu)
24 – 30 Maande	Cilliers Snyman (Skilsan)
18 – 24 Maande	JJ Daffue & Seun (Zandu)
Junior Kampioen Manlik	JJ Daffue & Seun (Zandu)
Reserwe Jnr Kampioen	Cilliers Snyman (Skilsan)
15 – 18 Maande	CB Uys (Corbu)
Kleuter Kampioen Manlik	CB Uys (Corbu)
Reserwe Kleuter Kampioen	JJ Daffue & Seun (Zandu)
Groot Kampioen Manlik	HJ Strydom (Amadeus)
Reserwe Groot Kampioen	JJ Daffue & Seun (Zandu)
GROEP KLASSE	
Beste Paar (Bul + Koei/Vers)	JJ Daffue & Seun (Zandu)
3 Afstammeling Van 1 Bul	CB Uys (Corbu)
2 Afstammeling Van 1 Koei	HJ Strydom (Amadeus)
Groep Van 3 Manlike Diere	JJ Daffue & Seun (Zandu)
Groep Van 3 Vroulike Diere	HJ Strydom (Amadeus)
Vertoning Van 3 Beeste	JJ Daffue & Seun (Zandu)
Beste Paar Van Toekoms	CB Uys (Corbu)

HJ Strydom (Amadeus)
HJ Strydom (Amadeus)
JJ Daffue & Seun (Zandu)
Cilliers Snyman (Skilsan)
JJ Daffue & Seun (Zandu)
JJ Daffue & Seun (Zandu)
Cilliers Snyman (Skilsan)
CB Uys (Corbu)
CB Uys (Corbu)
JJ Daffue & Seun (Zandu)
HJ Strydom (Amadeus)
JJ Daffue & Seun (Zandu)

Overvaal 2016

Senior Kampioen Vroulik	Hendrik vander Westhuizen (Wessenhof)
Junior Kampioen Vroulik	Frank Hinze (Minimoo)
Kleuter Kampioen Vroulik	Kobus van der Linde (Lundi)
Groot Kampioen Vroulik	Hendrik van der Westhuizen (Wessenhof)
Reserwe Groot Kampioen	Frank Hinze (Minimoo)
Junior Kampioen Manlik	Frank Hinze (Minimoo)
Kleuter Kampioen Manlik	Kobus van der Linde (Lundi)
Groot Kampioen Manlik	Frank Hinze (Minimoo)
Reserwe Groot Kampioen	Kobus van der Linde (Lundi)

SA Kampioenskappe Bloemfontein 2016



GROOT KAMPIOEN VROULIK
Zandu Thalia JJ Daffue & Seun

Overvaal 2016



GROOT KAMPIOEN VROULIK
Amadeus Lindie Hendrik van der Westhuizen



JUNIOR & RES GROOT KAMPIOEN VROULIK
Onyx Bambi Sam Marx & Gerald Jaeger



GROOT KAMPIOEN MANLIK
Minimoo Crimmon Frank Hinze



JUNIOR & RES GROOT KAMPIOEN MANLIK
Zandu Yster JJ Daffue & Seun



GROOT KAMPIOEN MANLIK
Amadeus Fred HJ Strydom & Seuns

skou UITSLAE 2017

Hertzogville 2017

Senior Kampioen Vroulik	Coen Van Tonder (Doranco)
Reserwe Snr Kampioen	Wilma Du Preez (Onyx)
Junior Kampioen Vroulik	Ockie Barnard (ORB)
Reserwe Jnr Kampioen	Sam Marx & Gerald Jaeger (Shamdex)
Kleuter Kampioen Vroulik	Coen Van Tonder (Doranco)
Reserwe Kleuter Kampioen	Ockie Barnard (ORB)
Groot Kampioen Vroulik	Coen Van Tonder (Doranco)
Reserwe Groot Kampioen	Ockie Barnard (ORB)
Senior Kampioen Manlik	Jak Strydom
Reserwe Snr Kampioen	Cilliers Snyman (Skilsan)
Junior Kampioen Manlik	Coen Van Tonder (Doranco)
Kleuter Kampioen Manlik	Coen Van Tonder (Doranco)
Reserwe Kleuter Kampioen	Wessel de Kock
Groot Kampioen Manlik	Jak Strydom
Reserwe Groot Kampioen	Coen van Tonder (Doranco)

Bloemfontein 2017

Senior Kampioen Vroulik	CB Uys (Corbu)
Reserwe Snr Kampioen	JJ Daffue & Seun (Zandu)
Junior Kampioen Vroulik	JJ Daffue & Seun (Zandu)
Reserwe Jnr Kampioen	CB Uys (Corbu)
Kleuter Kampioen Vroulik	Ockie Barnard (ORB)
Reserwe Kleuter Kampioen	CB Uys (Corbu)
Groot Kampioen Vroulik	CB Uys (Corbu)
Reserwe Groot Kampioen	JJ Daffue & Seun (Zandu)
Senior Kampioen Manlik	Jak Strydom
Reserwe Snr Kampioen	HJ Strydom (Amadeus)
Junior Kampioen Manlik	Coen van Tonder (Doranco)
Reserwe Jnr Kampioen	JJ Daffue & Seun (Zandu)
Kleuter Kampioen Manlik	HJ Strydom (Amadeus)
Reserwe Kleuter Kampioen	HJ Strydom (Amadeus)
Groot Kampioen Manlik	Jak Strydom
Reserwe Groot Kampioen	Coen van Tonder (Doranco)

Overvaal 2017

Senior Kampioen Vroulik	Kobus van der Linde (Lundi)
Reserwe Snr Kampioen	Hendrik van der Westhuizen (Wessenhof)
Junior Kampioen Vroulik	JJ Daffue & Seun (Zandu)
Reserwe Jnr Kampioen	Hendrik van der Westhuizen (Wessenhof)
Kleuter Kampioen Vroulik	Hendrik van der Westhuizen (Wessenhof)
Reserwe Kleuter Kampioen	Eddie Goosen (Maggiesdal)
Groot Kampioen Vroulik	Kobus van der Linde (Lundi)
Reserwe Groot Kampioen	JJ Daffue & Seun (Zandu)
Senior Kampioen Manlik	JJ Daffue & Seun (Zandu)
Reserwe Snr Kampioen	Eddie Goosen (Maggiesdal)
Junior Kampioen Manlik	Frank Hinze (Minimoo)
Reserwe Jnr Kampioen	Hendrik van der Westhuizen (Wessenhof)
Kleuter Kampioen Manlik	JJ Daffue & Seun (Zandu)
Reserwe Kleuter Kampioen	Frank Hinze (Minimoo)
Groot Kampioen Manlik	JJ Daffue & Seun (Zandu)
Reserwe Groot Kampioen	Frank Hinze (Minimoo)

Bela-Bela 2017

Senior Kampioen Vroulik	Hendrik van der Westhuizen (Wessenhof)
Junior Kampioen Vroulik	Maira Hampson (Tori Raine)
Reserwe Jnr Kampioen	Hendrik van der Westhuizen (Wessenhof)
Kleuter Kampioen Vroulik	Hendrik van der Westhuizen (Wessenhof)
Reserwe Kleuter Kampioen	Eddie Goosen (Maggiesdal)
Groot Kampioen Vroulik	Hendrik van der Westhuizen (Wessenhof)
Reserwe Groot Kampioen	Maira Hampson (Tori Raine)
Senior Kampioen Manlik	Eddie Goosen (Maggiesdal)
Junior Kampioen Manlik	Hendrik van der Westhuizen (Wessenhof)
Reserwe Jnr Kampioen	Maira Hampson (Tori Raine)
Groot Kampioen Manlik	Eddie Goosen (Maggiesdal)
Reserwe Groot Kampioen	Hendrik van der Westhuizen (Wessenhof)

Hertzogville 2017



GROOT KAMPIOEN VROULIK
Doranco Erien CF Van Tonder en seun



GROOT KAMPIOEN MANLIK
Amadeus Fred Jak Strydom

Bloemfontein 2017



GROOT KAMPIOEN VROULIK
Corbu Macdonald CB Uys



GROOT KAMPIOEN MANLIK
Amadeus Fred Jak Strydom

Overvaal 2017



GROOT KAMPIOEN VROULIK
Lundi Karien K van der Linde



GROOT KAMPIOEN MANLIK
Zandu Yster JJ Daffue & Seun

Bela-Bela 2017



GROOT KAMPIOEN VROULIK
Amadeus Lindie H van der Westhuizen



GROOT KAMPIOEN MANLIK
Zandu Tobie E Goosen

Royal 2017

Senior Kampioen Vroulik	ORB (OP Barnard)
Reserwe Senior Kampioen	Amadeus (H Strydom)
Jnr Kampioen Vroulik	Minimoo (F Hinze)
Kleuter Kampioen Vroulik	Amadeus (H Strydom)
Reserwe Kleuter Kampioen	Amadeus (H Strydom)
Groot Kampioen Vroulik	ORB (OP Barnard)
Reserwe Vroulike Kampioen	Amadeus (H Strydom)
Senior Kampioen Manlik	Amadeus (H Strydom)
Junior Kampioen Manlik	ORB (OP Barnard)
Reserwe Junior Kampioen	Minimoo (F Hinze)
Kleuter Kampioen Manlik	Amadeus (H Strydom)
Reserwe Kleuter Kampioen	Minimoo (F Hinze)
Groot Kampioen Manlik	Amadeus (H Strydom)
Reserwe Groot Kampioen	ORB (OP Barnard)



GROOT KAMPIOEN VROULIK
ORB Mandie OP Barnard



GROOT KAMPIOEN MANLIK
Amadeus Payday H Strydom



Dexters

Opreg in ons strewe

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Bloemfontein

jvanaswegen5@gmail.com



*Grootkampioen,
3 jaar agtereenvolgens.*



*Goeie uiers.
8 jaar,
sewe kalwers.*



Die waarde van In Vitro embrio-oorplasing



Minimoo Lilly, ontspanne by In Vitro Africa te Parys

Vir die eerste keer in Suid-Afrika se geskiedenis is ovumkolleksies op die Dexterras gedoen. Embrios is suksesvol in die laboratorium gekweek en is in Desember 2017 in ontvangerkoeie oorgeplaas. Die eerste In Vitro Dexter kalwers word later in 2018 verwag.

Genetika uit Minimoo en Floramanzi lyne is vir hierdie proses deur Minimoo Dexters beskikbaar gestel, 'n Dexter stoet geleë naby Howick in die Middellande van Kwazulu Natal.

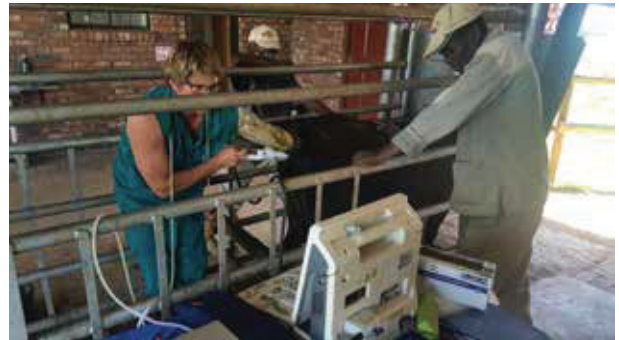
A. Die In Vitro Embrioproduksie (IVEP) proses

Die IVEP proses bestaan uit drie fasette:

1. Ovumkolleksie (OPU)
2. Produksie van embrios in die laboratorium (IVEP) en die
3. Oorplaas van die embrios

1. Ovumkolleksie (OPU) word gedoen deur oösiete (eierselle) direk vanaf die eierstokke te "oes". 'n Lang dun naald word onder ultraklankgeleiding deur die vaginale wand gevoer en die follikels (waarin die oösiet voor ovulasie is) op die buiterand van die eierstokke word onder vakuum uitgesuig. Die oösiete word dan uitgesoek,

geselekteer en dadelik in 'n vervoerbare inkubator in 'n spesiale rypwordingsmedium geplaas om die laboratorium binne 20 ure te bereik.



Ovumkolleksie van 'n Dexter koei deur Dr. Johan Coertze, In Vitro Africa

2. Produksie van embrios in die laboratorium

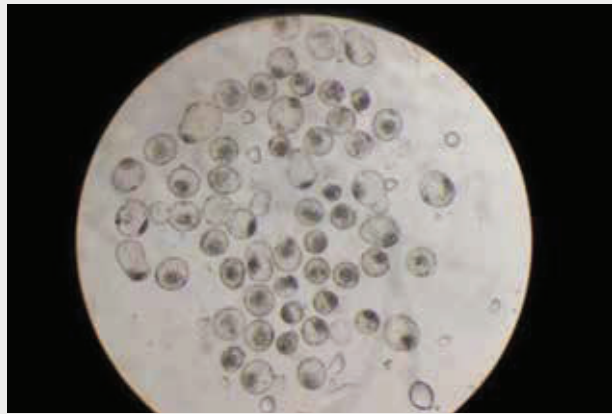
Hierdie proses vind plaas in inkubators (broeikaste) wat die baarmoeder "namaak" en word in 5 stappe verdeel:

- Maturasie (rypmaak) van die oösiete
- Bevrugting van die oösiete
- Kweking van die embrios
- Voeding van die embrios
- Evaluasie van die embrios



Bevrugting van die ovums deur Me. Elzaan Bouwer, In Vitro Africa

Embrios wat suksesvol gekweek is, word dan in draerdier oorgeplaas of gevries (gevitrifiseer). Die tegniek van bevrugting wat gebruik word met IVP embrios (In Vitro geproduseerde embrios) verskil van die IVD (konvensionele embrios) deurdat dit gevitrifiseer word. Vitrifikasie is 'n baie vinnige bevrugtingstegniek. Die embrios word vir 80 sekondes aan die bevrugtingsmiddel blootgestel en dan direk in vloeibare stikstof gedompel. Spesiale mediums is dan nodig om die embrios weer te ontdooi.



Embrios te In Vitro Africa

3. Oorplaas van die embrios

Oorplasing van die embrios geskied 8 dae na ovumkolleksie of 7 dae na bevrugting van die oösiëte. Op die dag van oorplasing word die embrios finaal ge-evalueer. Dit word dan in 'n spesiale medium geplaas en met 'n vervoerbare inkubator na die plek van oorplasing vervoer. Na evaluasie van die ontvangerdier, word die embrios in die baarmoeder geplaas. Die proses is presies dieselfde as met konvensionele (IVD) embriooorplasing.

Voor oorplasing word die ontvangerdier deur 'n embrio-veerts ondersoek om te bepaal of sy geskik is om 'n embrio te ontvang. Die oorplaas van embrios behels die laai van 'n embrio in 'n ¼ ml strooitjie wat in 'n embriopistolet geplaas word. Die embrio word onder 'n mikroskoop noukeurig opgesuig met behulp van 1ml spuitjie. Die oorplasing word versigtig gedoen onder die invloed van 'n epidurale verdoving. Die vaginale area word skoongemaak en deur 'n assistent oopgemaak sodat die veearts die pistolet tot by die serviks kan voer. Die pistolet word versigtig deur die serviks gemanipuleer en die embrio word in die voorste derde van die baarmoederhoring gedeponeer. Dit is belangrik om nie die binneward van die baarmoeder te beskadig nie, aangesien dit die kans op 'n suksesvolle dragtigheid drasties sal beïnvloed.



Oorplasing van Dexter embrios deur Dr. Neil van Zyl, In Vitro Africa

B. Die Geskiedenis van IVEP

Die proses van *in vitro* embrioproduksie het in die laat 80's al begin, maar was hoofsaaklik gefokus op navorsing. Met die groei en ontwikkeling het dit daartoe gelei dat meestal "probleem" koeie in IVEP programme gebruik is. Die tegniek is eers in die laat 90's as kommersiële metode gebruik om embrios van top teeldiere te produseer en het sedertdien meer populêr geword. Vandag is Brasilië die grootste *in vitro* embrio produseerder ter wêreld en dit verteenwoordig 95% van al die embrios wat geproduseer in word in daardie land.

Wêreldwyd is 546,628 IVP embrios in die jaar 2013 geproduseer. Die produksie van IVP embrios het van 2013 met 16,7% toegeneem en vir die eerste keer is meer as 500,000 embrios geproduseer waarvan meer as 400,000 oorgeplaas is. Suid Amerika het 72.7% (376 459 embrios) van alle IVP embrios in 2013 geproduseer, Noord-Amerika 21.7% (112 300 embrios), Europa 2.65% (13722) en Suid Afrika 0.97% (5012 embrios).

In Europa en Noord-Amerika neem dit tans stelselmatig toe en begin dit in die Oosterse lande ook posvat.

C. Voordele van IVEP

Die voordele wat IVEP bied is as volg:

- Beter benutting van genetiese potensiaal van top teeldiere – nuwe kuddes kan opgebou word uit die beste teeldiere sonder om die tussenkalfperiode van die ontvangerkudde of skenkerkoeie te versteur;
- Geen hormoonbehandeling word toegepas nie;
- Skenkerkoeie ondergaan nie bouvormveranderinge, soos oorontwikkelde skof en prominente stertwortel nie;
- Versameling van oösiëte kan reeds 1 maand na kalwing begin;

- Oösiete kan versamel word tot op 3,5 maande dragtigheids stadium van die skenker sonder om die fetus te beïnvloed;
- Meer kalfies kan verkry word in 'n koei se leeftyd;
- Ouer koeie met bewese rekords kan as skenkers gebruik word;
- Koste van die bulsaad wat gebruik word is baie laag – so min as 1 strooitjie kan vir die bevrugting van 6 tot 8 koeie se oösiete (tot 200 oösiete) gebruik word;
- Koste effektief;

D. Fasiliteite benodig

Omdat die oösiete baie sensitief is vir omgewingsfaktore, is dit nodig om in geskikte fasiliteite te werk. 'n Klein vertrek naby die drukgang kan ingerig word om as 'n laboratorium te dien waar die uitsoek, seleksie en verwerking van die oösiete gedoen kan word. Die vertrek moet verder aan die volgende vereistes voldoen:

- Dit moet stofdig en vry wees van chemiese en ander skadelike dampe;
- Die temperatuur moet beheer kan word;
- 'n Geskikte werksoppervlak hê wat gesteriliseer kan word;
- Dit moet lopende warm en koue water hê;
- Daar moet krag wees.

Goeie beeshanteringsfasiliteite is ook noodsaaklik. Die OPU-tegniek is baie delikaat en enige onnodige beweging tydens die versameling van die oösiete kan die resultate beïnvloed. Die drukgang waar die OPU uitgevoer word moet daarom verkieslik aan die volgende vereistes voldoen:

- Dit moet stewig wees met 'n behoorlike nek- en lyfklamp;
- Dit moet beskut wees teen wind, son en reën - verkieslik binneshuis;
- Daar moet deurgange of hekke agter die skenkerdiere wees vir mense om aan beide kante te kan werk.

E. Algemene vrae en knelpunte

Algemene vrae wat gevra word en knelpunte wat die ekonomiese haalbaarheid van die IVEP beïnvloed word hieronder bespreek:

a) Hoeveel embrios kan verkry word?

Die Dexterkoei is 'n relatief goeie produseerder van oösiete. Gemiddeld kan 15 tot 20 oösiete van een OPU verkry word. Indien 30% van die oösiete tot volwasse embrios in die laboratorium ontwikkel, beteken dit dat 4 tot 6 embrios elke twee weke

van elke koei verkry kan word. In die geval van jong verse en ouer koeie kan minder embrios verwag word.

b) Hoe word die skenker voorberei?

Geen eksterne hormone word tydens die voorbereiding vir OPU gebruik nie. Skenkers kan enige tyd tussen 5 weke na kalwing en 3,5 maande dragtigheid aangebied word vir OPU. Die OPU-tegniek is baie veilig en kan elke twee weke toegepas sonder nadelige effekte op die nie-dragtige of dragtige skenker.

Die skenkerdiere moet vroegtydig op 'n gebalanseerde rantsoen geplaas word - die kwaliteit van die oösiete word reeds 90 dae voor kolleksie bepaal. Die skenkers kan dan elke tweede week aangebied word vir oösietversameling.

c) Wat is die verwagte dragtigheids persentasie?

Die gemiddelde dragtigheids persentasie (wat oor 'n 12 maande tydperk gemeet is) is 51%. Gevalle het voorgekom waar die konsepsie so laag as 30% was terwyl die beste konsepsiesyfer van meer as 80% aangeteken is.

d) Wat is die verwagte dragtigheids persentasie met gevriesde (gevitrifiseerde) embrios?

Aanvanklik was dit die algemene persepsie dat die konsepsie met gevriesde (gevitrifiseerde) IVEP embrios baie laag is, maar die teendeel is intussen in Suid Afrika bewys waar konsepsiesyfers van 45% tot soveel as 60% gereeld verkry word.

Die grootste enkele faktor wat hierdie syfer beïnvloed is die ontvangerdier. Dit bring ons by die volgende vraag.

e) Hoe belangrik is die ontvangerdier en volgens watter kriteria moet hulle geselekteer word?

Die keuse en voorbereiding van die ontvangers is waarskynlik die faktor wat die grootste invloed op die sukses van die IVEP proses het. Die ras, ouderdom, reproduksiestatus, temperament, fisiologiese toestand (kondisietelling), voedingstatus en seisoen moet alles in ag geneem word wanneer 'n in vitro-program beplan word. Die ontvangerkoste is op die langtermyn die duurste item in die embrioprogram.

Algemene aanbevelings is die volgende:

- Beplan IVEP programme volgens die normale dekseisoen van die ontvangerkudde en laat genoeg tyd toe om die oorplasing op te volg met 'n periode van natuurlike dekking. Sodoende kan die ontvanger binne die bepaalde dekseisoen dragtig raak en is daar nie 'n verlies

aan 'n kommersiele kalf nie;

- Gebruik waar moontlik koeie wat reeds 2 of meer kalwers gehad het;
- Ten tye van die oorplasing moet die ontvangerkoeie ten minste 80 dae na die vorige kalwing wees;
- Vermy koeie wat na die dekseisoen oorgeslaan het;
- Ontvangerkoeie moet verkieslik in 'n stygende voedingsfase wees;
- Alle doserings en entings moet 3 weke voor die aanvang van die program afgehandel word;
- Ontvangerkoeie moet gewoon wees aan hantering en die hanteringsgeriewe wat gebruik gaan word.

f) Hoe verskil die gebruik van semen in IVEP programme met die van gewone spoelings?

In die geval van IVEP is dit nodig om eers die bevrugtingsvermoë van semen te toets deur oösiere by die slagpale te kollekteer en dit dan te

bevrug. Die aantal embrios wat in hierdie toets tot volwassenheid ontwikkel word dan as 'n persentasie bereken van die aantal oösiere wat gekweek is.

Daar is nie 'n duidelike korrelasie tussen saadkwaliteit (% lewendig, motiliteit en morfologie wat normaalweg beoordeel word) en die vermoë om oösiere te bevrug nie. Die gewone toetse wat op semenmonsters gedoen word, is dus nie voldoende om die geskikte strooitjie semen te kies nie. Daar bestaan selfs variasies tussen verskillende kolleksies ("batches") van dieselfde bul. Indien ongetoetsde semen gebruik word, lei dit dikwels tot teleurstellings en 'n verlies aan inkomste vir al die partye betrokke.

Slegs een strooitjie semen is voldoende om tot 200 oösiere of die oösiere van 6 koeie te bevrug in vergelyking met 6 strooitjies semen per koeie in die geval van konvensionele spoelings. Die semenkoste in die geval van IVEP is dus 2,7% van dié van embriospoelings.

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Height for age in grass-fed Chondrodysplasia-free Dexter cattle

- David Visser*, Frank Hinze** & Hans van Zyl#

*Floramanzi Dexters, Boutique Genetics; **Minimoo Dexters; # ARC-Animal Production Institute, Irene

In 2002, Dr. Julie Cavanagh from the University of Sydney (AU), announced her discovery of the chondrodysplasia gene at the 2002 International Dexter Congress. Since, this discovery has empowered Dexter breeders across the globe to avoid calf losses while enhancing the quality of their herds. When the test became available in South Africa, the total elimination of the mutation from the Floramanzi herd became a high priority in order to avoid the problems typically associated with carriers of the mutation. After testing all the Dexters in the herd for the presence of the mutation, it was evident that, with some notable exceptions, the mutation-free animals were at the larger end of the Dexter height scale. While the demand for mutation-free animals increased, clients on small properties surrounding cities and towns still had a substantial requirement for small cattle. Since there were no other Dexters tested chondrodysplasia-free in South Africa at the time, the project of breeding small mutation-free cattle began.

It soon became evident that it was not possible to breed consistently for a specific size using mutant cattle. These chondrodysplasia carriers were gradually replaced with their mutation-free offspring and only then could constant progress be made. The Floramanzi herd was well on its way in this endeavour when the Minimoo herd was founded with a few Dexters from Floramanzi. Dexters from several other sources were then added to the Minimoo herd and although there was a substantial difference in the genetic background of the animals between the two herds, the breeding aims were similar and the same approach to breeding small mutation free cattle was followed.

The famous cattle breeder Prof. Jan Bonsma (father of the Bonsmara breed) said: "To measure is to know". He emphasized how important it was to really measure and test when breeding for specific aims. The owners of the two herds decided to measure the height of all the cattle in each herd on a monthly basis over a period of several years in order to record the height growth of the animals until maturity. This allowed the owners of the herds to

- 1) directly compare animals in both herds with regard to height;
- 2) determine the pattern of growth per age as measured in height;
- 3) compare height growth of offspring of a particular animal when mated to different breeding partners;
- 4) objectively measure progress over time in breeding for a specific size (height) of Dexter;
- 5) determine the age at which Dexters stop growing in height.

Comprehensive data with regard to the growth in height of Dexters in South Africa are not available for comparison purposes. Limited data on height and growth were published by Manie Oberholtzer in The Proceedings of the first

World Congress on Dexter cattle, but this was based on a limited measurements and the chondrodysplasia status of the animals involved were unknown.

A simple, standardised measuring device was used to measure animal height in both herds. It consisted of a spirit level sliding up and down a vertical, graded core. The method in which height was measured is shown in the photograph.



A Cow being measured across the rump with a marked, adjustable measuring device including a level crossbar.

It is important to note that the data were collected under practical farming conditions and although this may contribute to error in the equations, the results are representative of practical on-farm conditions. Although height measurements were recorded once per calendar month, the day of the month on which the measurements were taken was not standardized. For statistical purposes the data was grouped per calendar month. When animals were sold their height measurements were discontinued, but all data collected up to that point was kept. Similarly, a few Dexters of known age and chondrodysplasia status were added to the herds from outside sources and included in the study.

During the summer months the herds grazed on two different kinds of pastures and had access to salt and phosphate block. During the winter months the grazing was supplemented with different types of grass hay, sometimes with lucerne (alfalfa), a mixture of chicken litter and/or corn (maize) or soy meal in different proportions.

The period of data collection included two climatic extremes: a year with severe flooding and a year with the worst drought recorded in a century. Body score was slightly below average in winter and higher in summer. It is thus evident that a wide range of conditions is included in these data with an important exception: These cattle never received any growth stimulant or a complete ration typically fed to animals in a feedlot. Therefore, these height growth results may not be applicable to Dexters raised in feedlots.

Dexters up to ten years of age were measured. The illustrations only include data up to three years old. Various equations were evaluated to describe the height growth curve of the animals. Although the Gompertz equation is the equation of choice to describe the growth of cattle in terms of weight gain, the von Bertalanffy equation was found to best describe the relationship between body height and age in these Dexters. Detail of the analyses will be published elsewhere. The mathematical equation describing the height growth of Dexter heifers is:

$$\text{Height of Heifer}_{(\text{age in m})} = [106.14^{2.0171} - 8529e^{(-0.11605)(\text{age in m})}]^{0.495761}$$

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Zandu Dexters

JJ Daffue & seun

Die dubbeldoelmeesters

SA STAMBOEK-KUDDE VAN DIE JAAR 2015, 2016, 2017

ELITE-VLEISBEESTELER VAN DIE JAAR 2015 - BRONS, 2016 EN 2017 - SILWERMERIETE

BLOEMSKOU 2015



PTA-SKOU 2015



BLOEMSKOU 2016



SA Stamboek

Superkoei 2015: Zandu Thalia

SA Stamboek

Koei van die jaar 2017: Zandu Nola

Prestasietoetsing

2015: Zandu Yster - Silwermeriete

2015: Zandu Rocky - Silwermeriete

2017: Zandu Zeus - Silwermeriete

BLOEMSKOU 2017



Groep van 5-veiling 2016:

Rekordpryskoei - Zandu Thalia (10 jaar oud)

Pretoria-veiling 2017:

Rekordprysbul - Zandu Tobie

Rekordprysvers - Zandu Lola

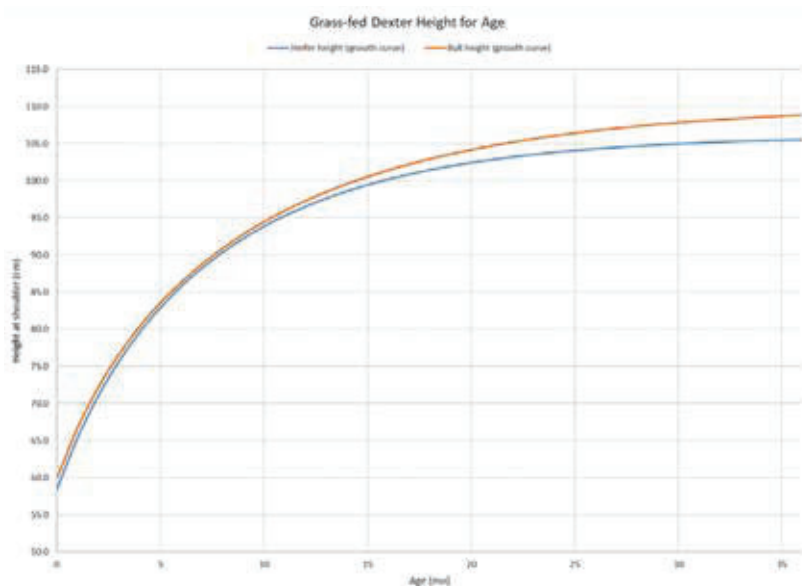
BLOEMSKOU 2017



Zandu Yster, verteenwoordig die Dexterras:

Elite Vleissentraal - SA Stamboek-bulgroeitoetsklas 2016 in BFN, LNR spesiale prestasietoetsklas 2016 - PTA.

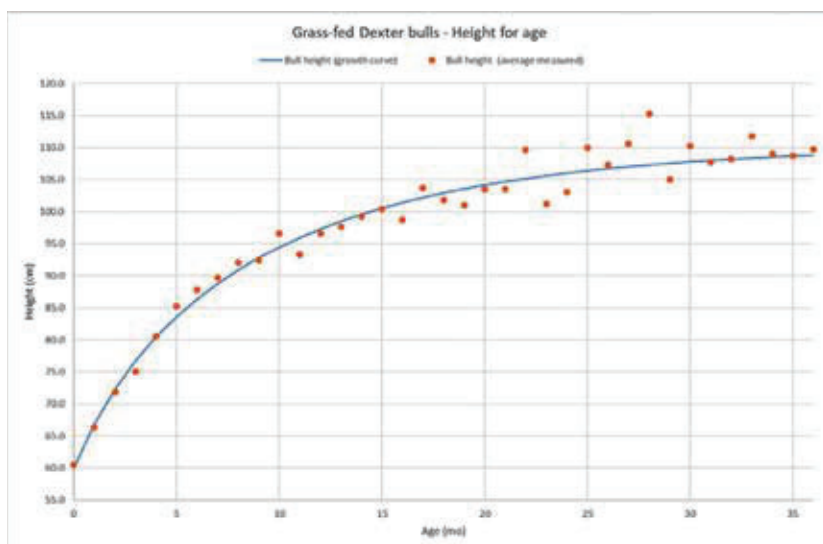
The equation is based on a total of 476 monthly height measurements on 59 animals and the following graph depicts the measured monthly average heifer height plotted against this growth curve:



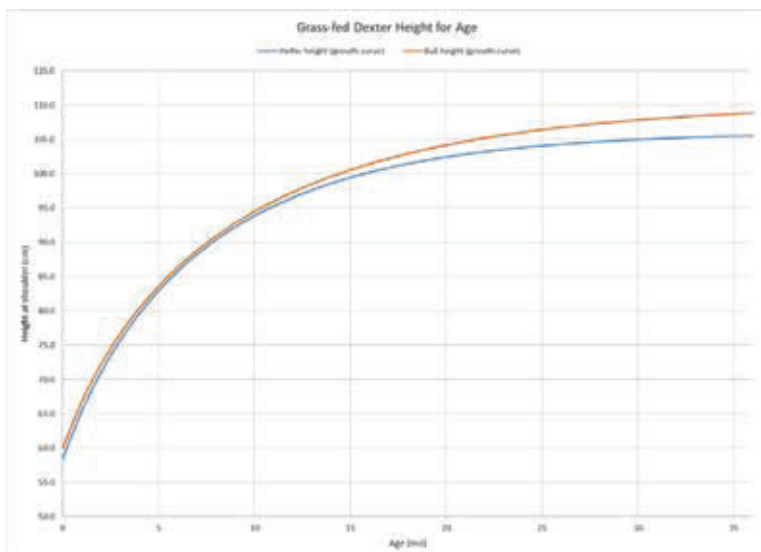
Because of limited grazing and other practical farming conditions less bulls could be raised to maturity. This is most evident in the number of height measurements available for the height growth of bulls in the 22 month to 36 month age group, adding to the high variation in height measurements in these age groups. A total of 319 monthly height measurements from 42 bulls were used to compile the following Dexter bull height growth equation:

$$\text{Height of Bull}_{(\text{age in m})} = [110.23^{2.5903} - 154800e^{(-0.087564)(\text{age in m})}]^{0.3861}$$

The following graph depicts the measured monthly average bull height plotted against this growth curve:



The height growth curves for the heifers and bulls plotted on the same graph give an indication of the difference in height growth between the two groups of animals:



During the first two months of life, heifers have the highest rate of height growth and 26.7% of the total increase in height occurs during this period. Bulls grow slightly slower in terms of height than heifers with only 25% of the total increase in height occurring during this period, much similar to the early growth pattern in children, where the length growth rate of girls exceed that of boys.

By six months of age, Dexter heifers have attained 58% of their total increase in height to adulthood versus 54% in Dexter bulls and it is only at 10 months old where the height growth rate of Dexter bulls starts to exceed that of heifers. By 12 and 24 months old, heifers have completed 80.8 and 96.3 % of the total height growth respectively, whilst bulls have completed only 76.4 and 94.3 % of their total height growth. After 31 months of age, Dexter heifers have only 1 % of their height growth to complete and will increase in height by only 0.5 cm to adulthood. The Dexter bulls reach this point between 32 and 33 months of age. For all practical purposes, grass-fed Dexter animals at 30 months can be considered to be fully grown with approximately 98% of the growth in terms of height completed.

Practical applications:

Growth curves are essential to evaluate the growth of individual animals. A significant deviation from the growth curve may signal that the animal is under or overfed, underlying disease or the presence of a genetic condition that influences growth and development. The number of animals raised from birth to maturity within this study is not yet enough to calculate correlations between birth height and adult height. However, correlations calculated between the different phases of the height growth curve (e.g. birth vs 6-month of age, 24 months vs 30 months of age) clearly indicate that an animal of which the birth height is in the low percentile range will most likely be found in the low percentile height range during all phases of the growth curve, including maturity. This may not only help in the selection of animals of a particular height, e.g. small animals, but may also be used by breeders to ensure that animals grow at an acceptable rate to limit management and reproductive problems, e.g. dystocia.

The authors sincerely hope this information will be useful to the Dexter community.



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AMADEUS DEXTERS' ACHIEVEMENTS

BLOEM SHOW 2015

- Junior champion bull
- Senior and grand champion bull
- Interbreed champion bull
- Interbreed reserve grand champion
- Vleissentraal Elite bull growth test class

JACARANDA AGRICULTURAL SHOW 2015

- Senior and grand champion bull
- Gold Cup champion bull

BLOEM SHOW 2016

- Breed champion
- Senior and grand champion bull
- Toddler champion heifer
- 2 descendants of one cow

AMADEUS PRODUCTION AUCTION 2016

- SA record price for a bull
- SA record price for a pregnant heifer
- SA record price for an open heifer

AMADEUS PRODUCTION AUCTION 2017

- SA record price for a pregnant heifer
- SA record price for an open heifer

BLOEM SHOW 2017

- Senior champion udder
- Senior reserve champion bull
- Toddler champion bull
- Group of 3 bulls
- Best toddler future pair

ROYAL SHOW 2017

- Breed champion
- Senior and grand champion bull
- Reserve grand champion cow
- Reserve senior champion cow
- Toddler champion bull
- Toddler champion heifer



SPECIAL ACHIEVEMENTS 2018

- Vleissentraal/SA Stud Book Elite bull growth test class 2018 Bloem Show

2015 - 2017

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A typical bull
in our herd.

AMADEUS PAYDAY

AMADEUS DEXTERS BREEDING POLICY

- Each cow weans a calf every year
- At least 55% weaning percentage
- Bulldog (chondrodysplasia) negative herd
- Pasture adapted bulls for the stud and commercial markets
- To strengthen dual purpose ability



How can **DNA technology** contribute TO THE DEXTER CATTLE BREED?

- Dr Munro Marx, Unistel Medical Laboratories

It is the goal of all cattle breeders to make genetic progress within their own herds and ultimately take their choice of cattle breed forward as a whole. Phenotypic selection and performance data have contributed immensely to making wise selection decisions to improve the quality of stock by measuring and recording. There are underlying genetic differences among individuals in a population and it is these underlying genetic differences that influence the phenotypes (performance). However, great technology strides have also been made in the last 15 years and DNA testing is central to ongoing genetic progress and genomic information. Ultimately genetically improved performance data (genomic EBVs) will provide added impedance to early accurate selection decisions and matings.

DNA-BASED PARENTAGE TESTING OF CATTLE

Why Parentage test?

The point of entry for genetic improvement is always a correct and accurate pedigree (family tree). As the performance of a proven bull is measured through the performance of his progeny, accurate pedigree recording is key to increasing genetic gain. An accurate pedigree allows accurate evaluation of animal performance which is essential when estimated breeding values (EBVs) are being used as the basis for selection.

Parentage testing is a powerful tool for cattle producers to increase the rate of genetic gain in their herds. To understand the DNA basis of parentage testing it is appropriate to refresh our basic understanding of DNA.

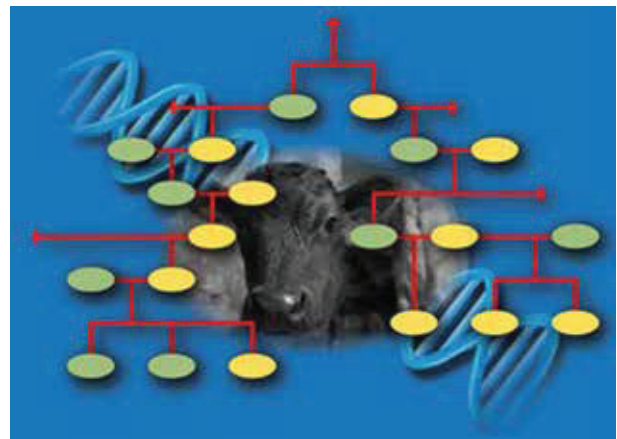
DNA contains the genetic “blue print” of which we inherit half from our mother and half from our father. DNA is found in all nucleated cells of which the most convenient to work with is hair follicles. There are regions in the DNA molecule that contain stretches that are highly repetitive, for example, ACGACGACGACG and are referred to as “nonsense DNA”. The number of repeats of the sequence varies between individuals; one individual may have 77 ACG repeats, while another individual may have 93 ACG repeats. This repeat variation makes the size of the marker different between individuals and this size difference can be detected in the laboratory and applied to verify breeding.

Contrary to the practice to only determine the sire for breeding confirmation, it is advisable to verify breeding using both the sire and dam. The practice to do line breeding and some inbreeding, narrows the gene pool and only confirming the sire

may lead to ambiguous results. In closely related crosses more than one sire may match the calf and the dam must be tested to identify the correct sire and confirm parentage. The illustration below is a classic example of this.

What is the Accuracy of DNA-Based Parentage Testing?

The above example makes use of the ISAG approved 15 DNA markers. This marker panel has been statistically validated and provides a very high level of accuracy. Accuracy is measured as “the ability of the panel to *exclude* an *incorrect* parent from a calf’s pedigree”. For all breeds, 99.99% of incorrect matings will be detected by parentage analysis. In cases where one parent (the sire) is considered, this figure is reduced to around 98% to 96% depending on the breed. In cases where closely related sires are run together in cow herds, ambiguous results may also be obtained if dams are not included. Incorrect paternity may be reported.



Both Bull 1 and Bull 2 match as sire						
DNA Marker	Calf		Bull 1		Bull 2	
TGLA227	77	101	77	77	87	101
BM2113	127	133	133	139	127	133
TGLA53	166	184	154	184	166	166
ETH10	221	221	211	221	119	221
SPS115	248	254	248	254	248	248
TGLA126	115	123	117	123	123	123
TGLA122	137	149	137	149	137	149
INRA23	202	214	208	214	202	208
ETH3	127	127	117	127	115	127
ETH225	150	160	148	150	160	160
BM1824	180	192	192	192	180	188
CSRM60	92	110	100	110	92	112
CSSM66	189	189	189	197	189	197
BM1818	262	262	260	262	260	262
ILSTS006	288	292	292	292	288	290

Both Bull 1 and Bull 2 match as sire if the dam is not tested

Bull 2 is excluded as sire								
DNA Marker	Calf		Dam		Bull 1		Bull 2	
TGLA227	77	101	93	101	77	77	87	101
BM2113	127	133	127	139	133	139	127	133
TGLA53	166	184	160	166	154	184	166	166
ETH10	221	221	211	221	211	221	119	221
SPS115	248	254	248	248	248	254	248	248
TGLA126	115	123	115	117	117	123	123	123
TGLA122	137	149	137	143	137	149	137	149
INRA23	202	214	196	202	208	214	202	208
ETH3	127	127	121	127	117	127	115	127
ETH225	150	160	148	160	148	150	160	150
BM1824	180	192	178	180	192	192	180	188
CSRM60	92	110	92	100	100	110	92	112
CSSM66	189	189	189	189	189	197	189	197
BM1818	262	262	262	270	260	262	260	262
ILSTS006	288	292	288	294	292	292	288	290

Bull 2 is excluded as sire on 7 DNA markers if the dam is included in the test

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- Trichomonas Foetalis
- Bulldog syndrome (Dexter)
- 1/29-Translocation (cytogenetics)
- Congenital Myasthenic Syndrome (CMS)
- Myostatin (F49L-gene)

Characteristics

- Coat Colour (Red)
- Polled
- Double Muscling

More on request



Advantages of DNA-Based Parentage Testing.

- **For the breeder:**
- DNA profiles provide the only “tamper proof” tool to ensure correct individual identification of animals ensuring a unique, permanent DNA ID for tractability
- Proof of parentage makes it possible to determine which bull sires quality progeny
- A bull’s service capacity can be determined.
 - Contributes in identifying differences in genetic potential of calves
 - Assists to terminate feeding bulls that are not contributing to the next generations
- Provides essential evidence for stock theft cases.
- Increases reliability and accuracy of EBV’s
- DNA certified pedigrees to comply with breed association requirements
- Quality control for AI, ET and multiple-sire calves
- Allows accurate population and family studies
- Samples can be archived for future testing
- **For the Dexter Breed Society**
- Allows correct, certified studbook records to be issued
- Helps protect value of the breed through selection criteria based on correct information.
- ID individual animals and certify their offspring
- Protect breed integrity and inherent traits
- Create value, growth and opportunity for their membership

DNA testing for economic important traits.

Traits of economic importance add value to the herd and contribute to profitability, The Dexter breed is a dual purpose breed and knowledge about these traits allows selection decisions to be made based on sound genetic principles. Traits of economic importance include the polled trait, milk quality traits and coat colour traits.

• **The polled trait**

The polled trait is inherited in a Mendelian fashion. It depends on just one gene and is expressed by the presence of just one copy of this gene. The polled gene (P) is dominant to the horned gene (p). When an animal inherits the dominant P gene from one parent, the individual’s appearance is the polled trait. The only time the horned trait (p) can be expressed is when dominant P gene is not present. There are three different gene combinations involving the polled trait namely PP (polled), Pp (polled), and pp (horned). Each parent passes one-half of its genetic makeup to its offspring.

The PP individual is polled is homozygous and possesses two identical genes. It will have all polled offspring regardless of whether the other parent is horned or polled, because it has only the dominant P gene to pass on to its progeny. PP bulls are sometimes referred to as 100% dehorners.

Pp individuals are also polled and are heterozygous for the polled gene (P). The Pp individual will pass two different genes to the progeny, P and p. Fifty percent of the time, the Pp individual will pass on the horn gene, p, to its progeny.

The pp individuals are horned, and are homozygous for the horned trait (pp). Horned (pp) individuals always pass on the p (horned) gene to its progeny.

Polled livestock are preferred by many farmers for many reasons. One of the foremost being the physical danger horned animals pose to humans, to other livestock and equipment such as a cattle crush.

• **Milk quality**

Dexter milk is highly regarded and dairy-bred Dexters can produce up to 3600 litres per lactation. It has been recorded that some Dexters have produced up to 4000 litres. Their milk has a butterfat content of 4%, with protein levels of about 3.5%.

Various genetic factors influencing milk quality are inherited in a dominant or recessive mode. Milk solids are composed of fat, protein, lactose and various mineral components and these all impact on the overall quality of milk.

The following milk proteins in particular have a positive effect on the value of milk:

- **Beta Casein** is an important gene for milk production traits. Unistel tests identify two important forms of beta casein (**A** and **B**). Higher milk yield is associated with the **A** variant while a higher protein and casein yield is associated with the **B** variant. *The DNA test is also able to identify animals that carry the **A2** beta casein variant which is considered to have health benefits over the other variants of protein (**A2** milk).*
- **Kappa Casein** is one of four non-whey proteins associated with increased protein yield and percentage in milk. Genetics tests are done for two forms of the Kappa-casein gene, A or B. The **A** variant and **AA** genotype are associated with higher milk production. The **B** variant and **BB** genotype are associated with increased milk protein and casein content, and better cheese yield.

Relative to protein content and cheese production, **BB** is the most favourable genotype, **AB** is intermediate and **AA** is the least favourable.

- **Beta Lacto globulin** is the major whey protein gene and has a major effect on casein number and cheese yield. The two 2 most common variants **A** and **B** are tested.. The **A** variant is associated with increased milk yield and whey protein content. The **B** variant is associated with increased casein and fat content and is favourable for cheese production.

- **Coat colours in Dexters.**

Three distinct colours dominate the Dexter cattle breed. These colours are black, red, and dun. There are two pairs of genes located on separate chromosomes that control these colours. Black and red is one pair of alternative colours. Dexter cattle have two different red genes and these two red genes are alternatives to each other and are very difficult to phenotypically distinguish. A DNA test can however help to distinguish the two. Both of these red genes are recessive to the black alternative and this means that every red Dexter must carry two red genes, one inherited from the sire and one inherited from the dam. The dun colour in Dexters is caused by a brown mutation. This mutation is recessive to the black alternative therefore every “dun” Dexter must also carry two dun mutated genes, one inherited from the sire and one inherited from the dam. Two black Dexters can breed black, red, or dun calves. Should black parents breed a red calf, each must carry a recessive red gene. Likewise, two black parents that breed a dun calf must each one dun gene. Two red Dexters will breed only red calves, even if each parent carries a mutated dun gene. A Dexter that contains two red genes and two dun genes is red in appearance.

Additional genes, independent of the genes for the basic colours, may be present in an animal's genotype and may modify the appearance of the animal. Such genes include, but are not limited to those which are responsible for brindling, black noses in reds, black shading in reds, and the shade of colour of reds and duns. Modifier genes do not alter the principles contained in the preceding nine concepts.

DNA testing for genetic disorders that impact on the Dexter breed.

There are two important genetic disorders that



(With thanks to David Visser, Dexter breeder)

can impact negatively on a Dexter herd. They are **Pulmonary Hypoplasia with Anasarca** and **Chondrodysplasia**.

- **Pulmonary Hypoplasia with Anasarca (PHA)**

“Pulmonary” refers to the lungs, “Hypoplasia” means incomplete formation and “Anasarca” means a general accumulation of serum fluids in various tissues and body cavities. Therefore “Pulmonary Hypoplasia with Anasarca” means incomplete formation of the lungs with swelling and a swollen appearance. PHA is an autosomal recessive genetic disorder and PHA-affected calves inherit a PHA gene from both its sire and dam. This lethal condition is only expressed when the calf is homozygous for the PHA gene. PHA-affected calves are either aborted or stillborn. The anasarca associated with this condition causes the PHA-affected calf to also swell tremendously with fluid in turn making delivery difficult and potentially endangering the life of the cow.

- **Chondroplasia.**

A unique genetic mutation causing defective bone growth results in a condition known as chondrodysplasia. The animals have a heavy bodied appearance on short legs. There is a large variation in phenotypic effect of this single-gene mutation and some animals being proportionate and quite attractive, while others are profoundly disproportionate with a dwarf-like appearance. The degree of dwarfism expressed is not consistent and the cause for the variation unknown. Carriers of the mutated gene may appear to be heavily muscled. This is because muscle that is

designed to attach to a normal bone is actually compressed onto a shortened one. The muscle is then caused to bulge. Carriers often show a greater spring of rib or can be potbellied because the organs retain their normal size but still must fit within the reduced skeletal framework. In the case where both genes are affected the foetus is mostly aborted between 30 and 60 days or between 6 and 8 months. The foetus has vestigial legs, an abdominal hernia and a 'bulldog like' head. The Dexter 'bulldog' is always born dead, hence the



(Stillborn Bulldog foetus)

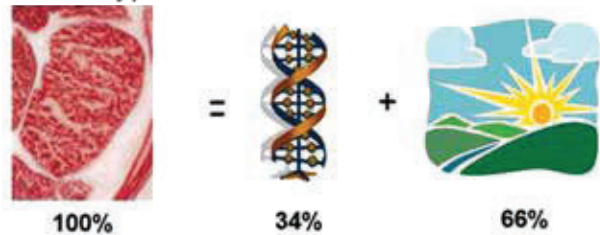
genetic designation 'lethal.'

Finally.

The primary role of DNA technology is genetic improvement and progress. The phenotype is dependent on the interaction between genetic factors and the environment. To an extent the environment can be physically controlled while

the genetics can be selected and tested for. DNA technology is therefore not a standalone selection criteria, but rather one of the components in the selection process.

Phenotype = Genetics + Environment



The common denominator in selection is however always variation and therefore the selection decisions must be based on relevant and correct criteria. The economics of cattle farming is closely linked to other developments in the industry like the improved knowledge of breeding practices, cross-breeding for adaptability and hardiness and DNA studies (identification, parentage, and origin). Making use of DNA technology and developments may further facilitate a change in qualitative traits (e.g. coat colour/polledness), genetic improvement in production traits (e.g. Milk quality and feed efficiency) and management of unwanted genetic conditions by correct selection decisions based on accurate and correct information and using this information to do the correct matings.



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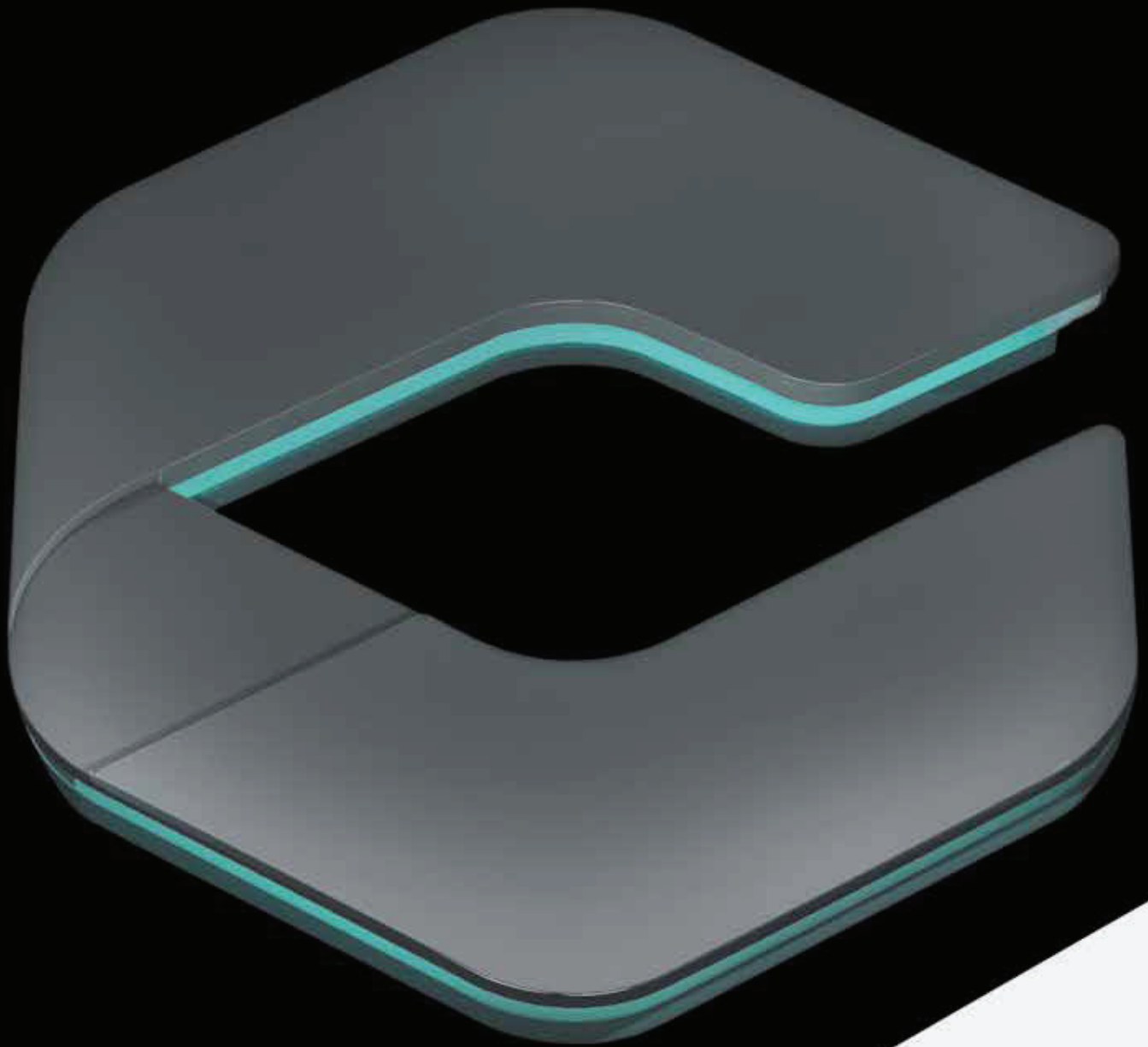
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Artificial Insemination OF CATTLE

- Frank Hinze, Minimoo Dexters

Artificial insemination, as a feasible alternative to the natural mating of cattle, presents the following advantages and disadvantages:



The author applying artificial insemination

ADVANTAGES

- There is no need to keep a breeding bull hence a cost saving of maintenance and management in that respect.
- Superior genetics are available without the purchase of a possibly unobtainable/exorbitantly priced bull.
- It prevents disease spread of sexually transmitted diseases e.g. Brucellosis and Vibriosis.
- Testing of semen for count and mobility improves breeding efficiencies.
- Semen of a certain bull can be used even after injury, old age or death of the bull.
- Conception rates may be increased.
- Maintains more accurate breeding and calving records.
- Improvement in genetic diversity.
- Enables, improves and fast-tracks international breeding progress.
- Upgrading of rural herds.

DISADVANTAGES

- Requires trained technicians who come at a cost.
- Requires special equipment.
- Necessitates in-depth knowledge of the reproductive system and functions.
- Improper sanitation and hygiene of equipment may lead to lower fertility.
- Timing of the process is of the essence and may delay breeding if not done at the right time.
- Spreading of disease may be increased if semen is not tested properly.
- Market for breeding bulls is reduced.
- Reduced semen viability / mobility as opposed to fresh semen.

ESTRUS

Estrus occurs roughly every 21 days in cows and is defined as follows: ***'The period of maximum sexual receptivity of the cow where she will accept the bull and is capable of conceiving'***.

In order to ensure maximized conception rate with artificial insemination, it is critical that the insemination takes place at the right time of the estrous cycle. Correct timing can be achieved either by heat observation or alternatively by synchronization.

1. Heat observation is done when the behavior of the animals is monitored for signs of heat (estrus). In cattle, the following are common signs of heat in the cow/heifer: Increased interaction of herd animals, excitement, alertness, restlessness, bellowing, sniffing, chin on the rump and mucous discharge. A cow in estrus will attempt to mount other animals and she will stand and allow other animals, bulls or cows, to mount her (Standing heat).



Synchronized heifers showing estrus behavior

The best times of day to observe estrus are at dawn and at dusk and the best time to inseminate artificially is twelve hours after estrus when ovulation takes place.

Cows showing estrus	Should be inseminated	Poor results achieved
In the morning	Same day	Next day
In the afternoon	The following morning or early afternoon	After 15h00 the next day

Heat observation requires some skill and experience and involves significant time spent by the farmer among his/her cows. No cost or application of hormones is however required. Further the timing of estrus is not accurate and where several animals are involved, repetitive and perhaps inconvenient call outs and travels

of the inseminator may be required, adding to the cost.

2. Synchronization is the artificial induction of estrus and can be achieved amongst others by making use of the hormone Prostaglandin. A cow has to be cyclic for an injection of this hormone to be effective. The cow will come into estrus within 3 to 7 days after such an injection. A second injection of Prostaglandin, 11 days after the first, will ensure that she is ready for insemination 72 to 84 hours after the second injection. This method is successfully applied when large numbers of cows are to be inseminated on a given day and eliminates repetitive call outs of the technician.

Involved is of course the cost of the Prostaglandin but this may prove significantly less than the cost and inconvenience of irregular call outs and the time, skill and timing applicable with heat observation.

EQUIPMENT

Equipment and consumables required are the following:



Equipment and consumables required for AI

- A Liquid Nitrogen flask storing the semen straws
- Insemination gun
- Sheath
- Sanitary sheath
- Thermos flask for thawing of frozen semen
- Thermometer
- Lubrication gel
- Disposable gloves
- Paper towel
- Scissors

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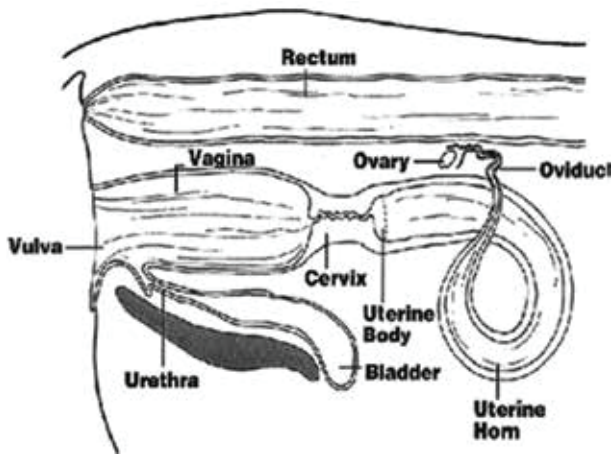
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INSEMINATION METHOD

Before we proceed, consider the following diagram representing the female bovine reproductive system:



The reproductive system of the cow

The most common method of artificial insemination in cattle is the recto-vaginal method. This process is achieved by manipulating the reproductive tract with your left hand in the rectum whilst using your right hand to operate the insemination gun, depositing semen in the uterus.

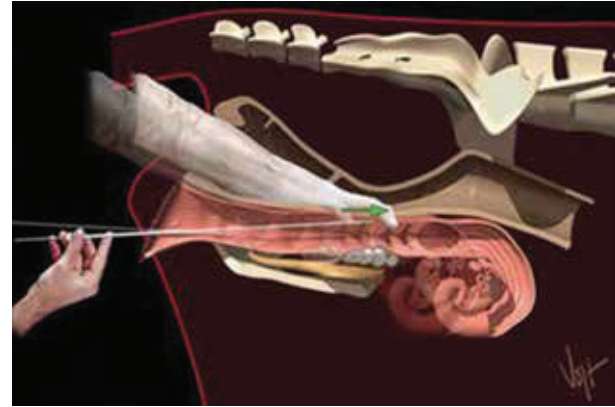
Remove the relevant semen straw from the liquid Nitrogen and allow it to thaw for 10 minutes in water of 35 degrees Celsius in a thermos flask. Once thawed, remove the straw from the water, dry thoroughly with a paper towel and place it in a warm insemination gun with retracted plunger at its rear end. Cut off the tip of the straw so that the semen can be released at a later stage. Cover the straw and gun with a plastic sheath that fits snugly over the gun. For improved hygiene, further cover the gun and sheath with a plastic sanitary sheath. At this point the insemination gun is ready for use. Ensure that the front end where the straw is located is kept at body temperature by holding it in the sleeve of your shirt.

Pull a disposable glove over your left arm, lubricate your gloved hand with lubricant gel and gently insert your hand into the rectum. Remove excess manure from the rectum in order to ease the feel for the reproductive tract which you will find below the rectum on the base of the pelvis. Grasp the cervix and hold it firmly in your left hand.

Clean the vulva with a paper towel and open the lips to insert the insemination gun, taking special care not to contaminate the gun with faeces. Insert the gun gently at a 30 degree angle, ensuring that

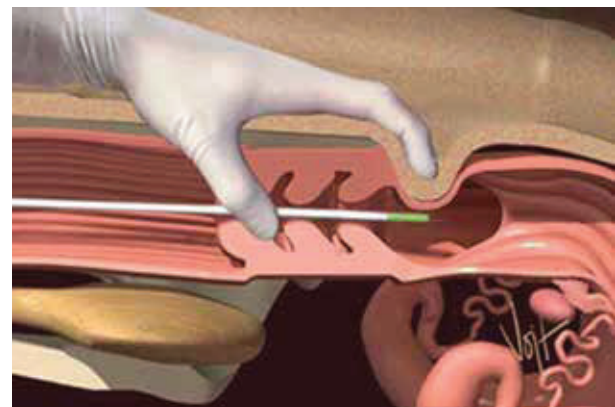
the tip does not enter the urethral opening of the bladder.

Push the cervix that you are holding in your left hand forward, straightening the vagina so that the gun can move freely without getting caught in a vaginal fold. Straighten the gun into a horizontal position and gently push it through the vagina towards the cervix.



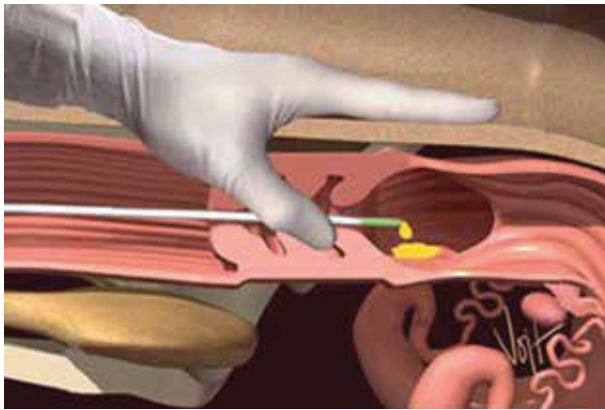
Push the cervix in your left hand forward in order to straighten the vagina

When you reach the cervix with the gun, you will feel a gristly surface. This is the opening of the cervix. At this point, pull the sanitary sheath at the rear end so that the tip of the gun protrudes through it ensuring utmost hygiene before the gun enters the uterus via the cervix. Using your left hand, maneuver the cervix over the tip of the gun until it protrudes on the other side of the cervix in the uterus. You will be able to feel the tip of the gun beyond the cervix with your left forefinger.



The tip of the gun can be felt with your fore finger beyond the cervix

Do not push the gun too far into the uterus as you should deposit the semen in the neck of the uterus, approximately 2cm beyond the cervix and not too far in one of the horns of the uterus as this may reduce the chance of conception. Deposit the semen in the uterus by pushing the plunger at the back of the gun with your right hand.



Deposit the semen 2 cm beyond the cervix in the uterus

Once this is done, carefully withdraw the gun from the cervix and vagina.

The cow can be released and your equipment should be cleaned thoroughly and the used consumables can be disposed of.

Record the breeding carefully and calculate your 21-day cycle date. If the cow does not show signs of estrus after 17 to 24 days, you have most likely been successful and the cow should be pregnant to calve roughly 285 days after the insemination.

Reproductive tract illustration credits to Select Sires.

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Pak die bul by die horings

ONTHORING VAN BEESTE

Om beeste te onthoring is ou nuus vir ons boere. Daar is verskeie metodes wat gebruik kan word om beeste te onthoring en die metode wat gebruik word word gewoonlik bepaal deur wat die boer verkies en waarmee hy vertrou is. Daar is ook verskeie redes waarom dit voordelig is om beeste te onthoring.

Hornings ontstaan uit die groei van 'n unieke lagie horing-produiserende velselletjies. Teen om en by twee maande begin die horings aan die skedel vasheg. Soos wat die proses vorder begin daar 'n verbinding vorm wat dan tot in die frontale sinus strek. Die ideaal is om kallers tussen twee weke en twee maande met konvensionele metodes te onthoring om sodoende te voorkom dat bogenoemde proses plaasvind voordat die dier onthoring word.

Metodes om beeste te onthoring sluit in:

- Chemiese onthoring van kalwers tussen 8-15 dae
- Sny van horingknoppies
- Brand met onthoringbout
- Knip of saag van groot horings

Diere ouer as drie maande moet verkieslik deur 'n veearts onthoring word aangesien lokale verdoving benodig word.

Wat is die voordele om beeste te onthoring?

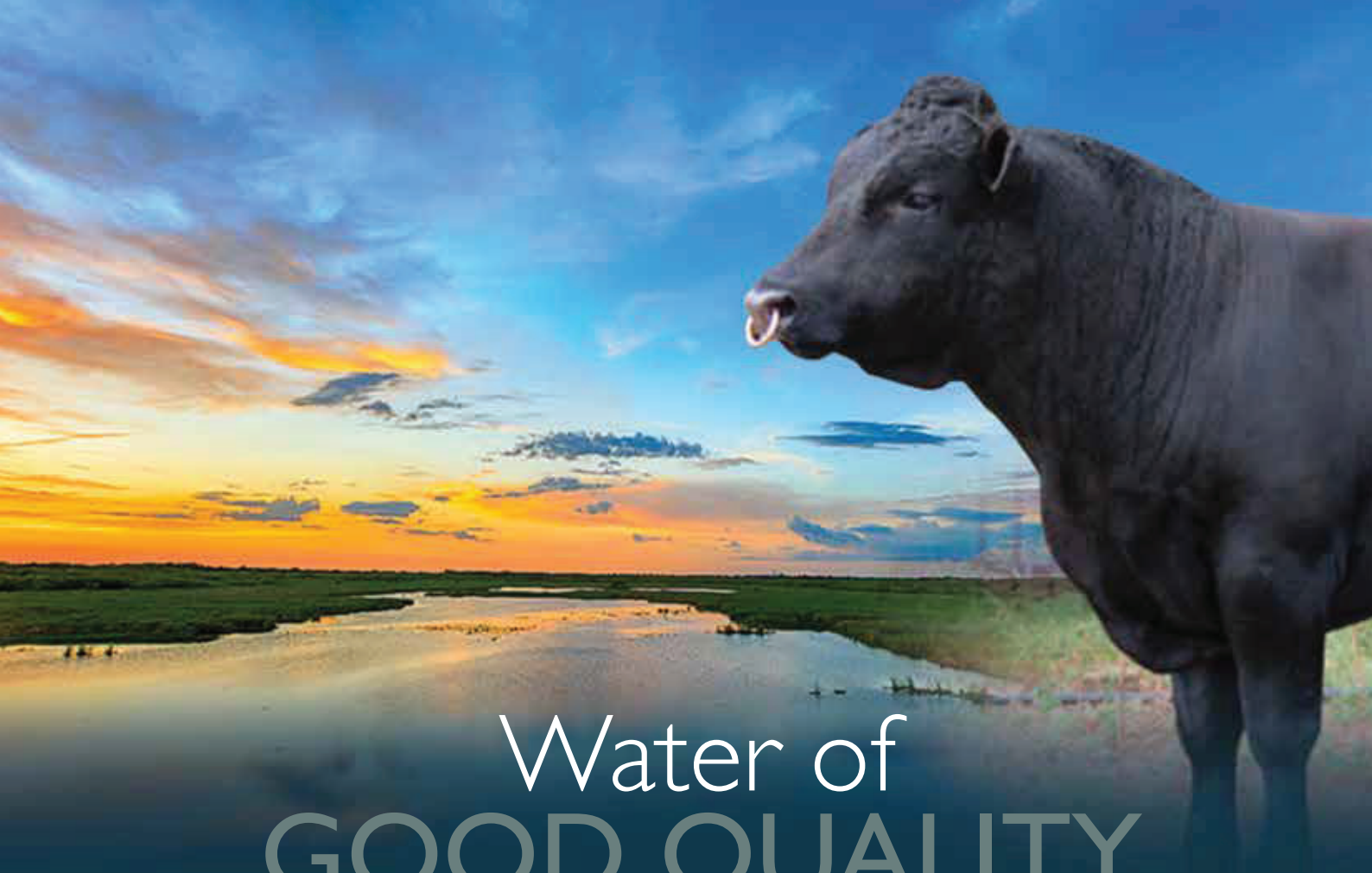
- Vergemaklik hantering en verlaag die risiko van besering aan die bees, ander beeste en werkers.
- Beserings aan die uiers en spene van koeie deur kallers met horings kan voorkom word.
- Beserings soos kneusing en wonde, wat lei tot die afgradering van vleis by die slagpale, kan beperk word.
- Die domineering van voerspasia op die plaas en in voerkrale deur beeste met horings kan beperk word wat dan lei tot verbeterde voerinname en groei.
- Meer spasia op vervoertrokke.

Die doel van onthoring is om die bestaande horingknoppie of horing te verwyder sowel as om die horing-produiserende lagie te verwyder om te voorkom dat die horing weer uitgroei.



Cipla Dehorning Gel is geskik om kalfies tussen die ouderdom van 8 tot 15 dae oud chemies te onthoring.

Die bytsoda as aktiewe bestanddeel in Cipla Dehorning Gel vernietig die horingknoppie sowel as die horing-produiserende lagie. Die aanwending is eenvoudig en behels dat die hare weg gevee word en slegs een druppel **Cipla Dehorning Gel** akkuraat aan elke horingknoppie aangewend word. Die kalf moet verkieslik vir ten minste 4 ure vanaf die koeie gehou word om te voorkom dat die koeie aan die kalf lek of teen die kalf skuur. Voorkom dat kalfies nat reën na aanwending. Cipla Dehorning Gel is in 'n 45g buisie beskikbaar wat genoeg is om \pm 30 kalwers chemies te onthoring.



Water of GOOD QUALITY important for cattle

- Jan Myburgh, Faculty of Veterinary Science, University of Pretoria, Onderstepoort

Introduction

Of the nutrients indispensable to life, water ranks second only to oxygen in importance. It is obvious that a fresh, clean, abundant and easily accessible supply of water must at all times be available to cows. Remember, if the available drinking water appears to be relatively clean and does not taste too bad, it does not tell us much and is absolutely no reflection of the quality of the water. A good example is fluoride that does not affect the palatability of drinking water but can cause serious health problems in livestock and humans. So, if a group of animals is not performing as expected, do not forget to also evaluate their drinking water. All watering sources should be monitored annually!

Water requirements or intake per day (L/day)

Lactating cows, especially dairy cows, require large volumes of drinking water every day. Water requirements are met from three main sources,

namely ingested drinking water (free water intake of FWI), water or moisture contained in or on feed consumed and metabolic water. Metabolic water is an insignificant source, if compared with FWI and moisture supplied by the feed. Drinking water can originate from surface water (earth dams, pans, wetlands, rivers or streams) or from groundwater (boreholes or springs) sources.

Water requirements of ruminants vary with environmental factors (ambient temperature), body size and level of production (e.g. milk production per day). Dietary factors, such as type of ration, dry matter content, and the concentrations of protein, inorganic salt and other minerals also influence water needs. High roughage diets may also increase water requirements by increasing the loss of water in faeces and urine. However, important factors that influence the actual volume

of water taken in are palatability, temperature of drinking water, handling and management practices that limit access to water, poor location of troughs, inadequate pump and line capacity, and stray voltage.

Low water intake decreases Dry Matter Intake (DMI) and milk production and loss of body condition. A restriction of 50% of voluntary water intake can reduce milk production by 50% and body weight by 14% after 4 days. These restricted cows behave aggressively around the water tank and spend less time lying down than cows with unrestricted supply. When lactating dairy cows are allowed 90% voluntary water intake, the effects are much smaller and difficult to detect. However, changes in behaviour around the water tank are still noticeable.

Water is an especially important nutrient during periods of heat stress. The physical properties of water, thermal conductivity and latent heat of vaporization are important for the transfer of heat from the body to the environment. Providing fresh, cold water during periods of extreme heat stress especially at the afternoon milking, can reduce body temperature and increase milk production. During summer months, cows provided with no shade consumed 18 % more water per day than cows provided with shade. Providing an abundant supply of fresh clean water contributes to increased milk production and animal health.

A dairy cow needs roughly 3L of drinking water per kg milk produced. The major factors affecting FWI of cows are the DMI and the percentage of Dry Matter (DM) in the feed. Increasing dietary DM increases the FWI in livestock. Increased FWI of cows caused by increasing crude protein (CP) content of the ration is a physiological response to be able to dilute and excrete nitrogen in excess of needs. Free water intake (FWI) or water needed per day (L/day) in cattle can be calculated by using special formulas (numerous are reported in literature).

Drinking water should always be provided to calves to enhance growth and DMI. During the milk stage, calves receive most of their water via the milk. Calves offered water *ad lib*, in addition to their liquid diet, gained faster and consumed dry feed quicker than calves given only milk. Water intake increases from about 1L/day during the first week of life, to over 2.5 L/day during the fourth week

of life; with most of the increase occurring during the fourth week. When corrected for body weight, young animals have a greater water turnover rate and ingest proportionally more per kg metabolic live weight per day.

Estimating the amount of water that should be consumed by animals (e.g. water requirements) and measuring the volume of water supplied can be helpful when investigating water related problems and to differentiate between water quantity and quality problems.

Palatability

Palatability and acceptability of a specific water source for livestock may influence the volume of water taken in per day. Water quality constituents (WQC's), singularly or in combinations, can affect the palatability of water. A water source causing sub-optimal water intake due to adverse palatability can be assessed as water of poor quality for livestock production.

The WQC's of primary concern regarding palatability are: TDS (Total Dissolved Solids or salinity), Cl and SO₄. Casey, *et al.* (1996) investigated the effects of Cl and SO₄ on the palatability of water at varying TDS levels and ratios of Cl : TDS and SO₄ : TDS. It was found that both variables had a significant adverse effect on the palatability of the water, judged by a decrease in the water intake for both variables and a decrease in the feed intake for the Cl variable. Sulphate appeared to have a negative effect on palatability at a lower level than Cl.

Other WQC's like Mg, NO₃, Fe, Cu, HCO₃⁻ and high concentrations of heavy metals may also impart a detectable taste to water and influence the palatability. Levels of WQC's, such as nitrates, fluoride and other heavy metals may become toxic prior to significantly affecting palatability. Faecal contamination, micro-organisms, protozoa, algae, odours, industrial and agricultural chemicals, and dissolved carbon dioxide may also influence voluntary water consumption.

The norm used to assess water palatability, is the response of animals primarily in terms of water intake. Deviation of the water intake from the normal level, as dictated by the physiological requirement, is usually an indication of adverse palatability. An increase in the TDS present in water could be accompanied by an increase in the amount of water ingested. Additionally, any decline

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in production, health or feed intake may indicate sub-optimal water intake or a palatability problem.

The following information regarding the response of the animal to a water source may aid in identifying and alleviating problems associated with palatability:

- Initial water refusal
- Time taken to drink readily
- Volume consumed - relative to TDS
- General condition of animals

Livestock can generally adapt to adverse palatability, but this varies markedly between species, palatability constituents and production system specifics. Adverse palatability results in an initial reluctance by livestock to consume water, after which they will either adapt to the water, or (if offered no alternative supply) be forced via thirst signals to drink from the available source. Sheep and goats tend to be more reluctant to consume water with an abnormal odour or taste, if compared to cattle.

The resultant consumption of unpalatable water is usually sub-optimal, but may be excessive after a prolonged period of refusal. Due to the direct positive correlation between water and feed intake, sub-optimal water intake can cause production and health to decline. In extreme cases where livestock refuse to consume water for an extended period (more than 48 hours), the effects may be acute.

Livestock that have adapted to saline waters tend to increase water intake leading to a high intake of other potentially hazardous constituents (PHC's) in the water. Toxic effects can, therefore, result at normally safe concentrations in water primarily due to the increased daily intake.

Understanding water quality

Water is an essential component of the diet of livestock. However, drinking water can also be the source of hazardous constituents (minerals, microorganisms, blue-green algae and organic pollutants) and parasites.

Water quality is a term used to describe the microbiological, physical and chemical properties of water that determine its fitness for use. Good quality water does not imply pure water, nor does it imply clear water with acceptable smell or taste. Murky water or water with an unpleasant

odour, may be safe to drink, whereas clear water may contain pathogens or potentially hazardous constituents. Three norms are used to assess the fitness of use of water intended for livestock consumption: (1) animal health effects (toxicology and palatability); (2) livestock product quality for human consumption (e.g. milk); and (3) watering system effects. Many groundwater and surface water sources in South Africa have been observed to contain potentially hazardous concentrations of inorganic elements for livestock.

Whilst problems associated with palatability are relatively easy to observe by the farmer, toxicological problems usually follow a subclinical route (no obvious clinical signs observed). Water is often provided to livestock based on the incorrect perception that acceptable palatability implies good quality. There is often an inverse correlation between the salinity (salt-taste of water) of the water and the presence of hazardous constituents.

Some of the adverse effects associated with the ingestion of poor quality water are a reduction in reproduction efficiency, decreased viability of offspring, poor growth rate and reduced resistance to diseases. These usually tend not to be observed or diagnosed, or are attributed to other factors such as poor management, nutrition or internal parasites. A classic example of a chronic water-related problem is fluorosis. However, water of poor quality can also result in acute deaths, with the most important examples of this being nitrates and blue-green algae.

The type of water source and extraction rate can also influence the quality of water supplied. Deeper boreholes tend to produce water with a higher mineral content (e.g. fluoride), whereas water from shallower boreholes may be more likely to have higher levels of nitrates and coliform bacteria. Sometimes the age of the borehole, casing type, and type of pumping device induce certain mechanical problems, including a cracked casing or defective sanitary seal.

Most of the water quality problems are of a chronic, subclinical nature, making laboratory testing of water samples essential. A diagnostic approach to the major groups of constituents affecting water quality is discussed in this article to assist farmers and veterinarians investigating local water quality problems. Remember, good management decisions

are based on good information and you cannot manage it if you do not measure!

Diagnostic approach to water quality problems

In order to access the quality of water, in terms of its fitness for use, water must be analysed for certain parameters by specialist laboratories. Water quality guidelines are used to identify the potential hazard constituents (PHCs) from the laboratory results.

Meaningful risk assessment can only be done after evaluation of the water quality (laboratory investigation) and when site-specific managerial and environmental factors are also taken into consideration. The production system environment can alter the risk factors present and as a result play a significant role in exacerbating or alleviating the problem. Water intake varies significantly between environments and production systems, and thus impacts on the dosage ingested of the constituents present in the water. It is also these site-specific risk and production factors that afford the farmer an opportunity to solve the problems that occur.

Water quality constituents

Minerals or inorganic elements

Water contains inorganic constituents that may be a valuable mineral supplement for livestock. However, high concentrations and/or imbalances between constituents can cause clinical problems, ranging from excesses, inadequacies, to induced imbalances.

Cyanobacteria or blue-green algae

Cyanobacteria, or blue-green algae, have been associated with numerous animal deaths in many parts of the world, including South Africa. Cyanobacteria are widely distributed and indications are that toxicity is possible in any surface water source that can support a cyanobacterial overgrowth or bloom. Seeing that all cyanobacterial blooms are not always toxic, an appropriate diagnostic approach is necessary to investigate cyanobacterial outbreaks.

In southern Africa, the most common bloom-forming cyanobacterium is *Microcystis aeruginosa*. The widespread distribution of *Microcystis* indicates a tremendous potential for toxic blooms to develop in major dams, pans, small farm dams, troughs and even rivers, should conditions be favourable. However, blooms by other blue-green algae have also been reported.

Bacterial contamination

Water-borne microbiological diseases are typically caused by enteric pathogens, which belong to the group of organisms transmitted by the faecal-oral route. In other words, they are excreted in faeces by infected individuals and ingested by others through contaminated water or food. Water is usually tested for faecal contaminants.

The role that water is playing in the epidemiology of infectious diseases affecting farm animal in southern Africa, is not altogether clear. However, we know that several infectious agents can survive in water for long periods and that contaminated water-bodies can serve as a source of these organisms. Willms (2000) conducted several studies to investigate the effect of cattle faeces on water acceptance. Their results show a strong avoidance of faecal contaminated water and FWI may be suppressed.

Parasitic diseases

Africa has more than its fair share of water-related parasitic diseases affecting humans and animals. Parasites of importance for livestock, with intermediate hosts (snails) associated with surface water sources, are liver fluke (*Fasciola hepatica* and *F. gigantica*), conical fluke (*Calicophoron microbothrium*) and bilharzia (*Schistosoma mattheei*). Therefore, economic losses are common in areas where the intermediate hosts are present.

Chemical pollutants

Large volumes of chemicals are manufactured and used, worldwide, everyday. Some of these chemicals and/or their products eventually become environmental pollutants by ending up in our water sources as a result of: run-off from crop soil and plants; being pumped via sewage into rivers; direct spraying of surface water to control pests; or after industrial accidents.

Only recently has it been realised that chronic exposure to low levels of some pollutants in the environment can have harmful effects in humans and animals. These chemical pollutants are collectively known as endocrine disruptors (EDCs), because they mimic natural hormones. They influence the action of hormones in the body (causing fertility problems in animals), or alter the normal function of the immune -, nervous - and endocrine systems.

Conclusion

Production and health of livestock can be influenced by the quantity and quality of drinking water supplied. Specific hazardous inorganic constituents, pathogenic microorganisms, parasites, cyanobacteria and chemical pollutants, occurring in drinking water, may cause clinical (deaths due to nitrates or cyanobacteria) or sub-clinical problems (sub-optimal production and health). Drinking water can under certain conditions be associated with economic losses (poor growth and production, or mortality) in livestock.

If you need information on water related problems or help with the interpretation of water analysis results, please feel free to contact Prof Jan Myburgh, (012) 529 8350(w), 082 392 2534, email: jan.myburgh@up.ac.za

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A close-up, black and white photograph of a greyhound's face, focusing on its eye and the texture of its fur. The image serves as the background for the article's title.

DEXTERS ^{in die} VOERKRAAL

- Christo Venter – Spree Dexters

Kan mens kommersieel met Dexters Boer?

Die vraag hierbo moes al op baie mense se lippe gewees het. Ek is ook baie seker dat die antwoord in baie gevalle “Nee” was. In die verlede toe soveel van ons diere positief die draer was van die “Bulldog-geen” sou min mense seker kon sê dat jy wel met Dexters kommersieel kan boer. Maar intussen het daar baie verander in Dexter geleedere, dus moet mens seker die vraag heroorweeg en na ‘n paar punte kyk wat.

Wat beteken dit om kommersieel te boer met enige dier?

Die boer wat homself as ‘n kommersiële boer sien is daarop ingestel om sy wins te maak uit die praktyke waar mens die breër mark bedien. Die verkope wat so ‘n boer maak is nie noodwendig die hoogste pryse per dier, soos in die geval van stoet diere nie,

maar die hele idee is om soveel van die eenhede te lewer aan ‘n mark as moontlik. Ons praat dus gewoonlik van volumes. Dit beteken onomwonde dat mens vroulike diere in ‘n baie goeie toestand wil verkoop en wat van baie goeie gehalte is en sodat hulle by die koper se plaas sal presteer soos by jou plaas. Die tweede punt is dat die kommersiële boer by uitstek vir die vleismark boer. Dus het ons geen ander keuse as om te vra of Dexters goed genoeg presteer in ‘n voerkraal nie.

Die fokus van die artikel is dan ook op die voerkraal opset gemik.

Die oogmerk van ‘n voerkraal is om diere vir so min koste as moontlik te laat uitgroei en dan die hoogste moontlike gehalte vleis te lewer, sodat jy die maksimum wins daaruit kan maak.

Agtergrond

'n Jaar of twee gelede het 'n paar Dexter boere saamgespan en 'n fase-D toets gedoen met die uitsluitlike doel om vas te stel hoe goed kan Dexter bul-kalwers groei indien die toestande so swak as moontlik is. Die hele idee hieragter was dat almal altyd hulle diere die beste moontlike kans in die lewe gee en dan groot bohaai maak oor hoe goed hulle diere presteer. As mens gaan kyk hoe boere (nie net Dexter boere nie) oor die algemeen fase-D toetse doen, dan staan jy soms verstom as jy sien wat alles vir die diere gedoen (en gevoer) word sodat hulle goeie prestasies kan lewer. Die betrokke boere het vir mekaar gesê hulle weet al teen daardie tyd dat 'n Dexter goed op die veld kan presteer as die toestande gunstig is, so hulle het die kalwers in 'n kamp gesit met winterveld en die enigste lek wat hulle gekry het was 'n mengsel van sout en Meester 20 / Super 18, in 'n verhouding van 10 sakke sout tot 1 sak Meester 20 / Super 18. Die diere in die toets het nie 'n enkele dag groenvoer gekry of enige ander voer behalwe dit wat op die veld gestaan het vir die hele toets-periode nie. Dit is baie duidelik dat die diere nie die beste toestande gehad het nie, maar die resultate was verstommend.

Die voerkraal, wat die inligting vir hierdie artikel voorsien het, het van dieselfde standpunt uitgegaan. Ons wil weet of Dexters, as hulle nie die beste denkbare behandeling kry nie, goed genoeg sal presteer om in 'n voerkraal opgeneem te word. Dan sal hulle net beter presteer indien die toestande meer gunstig geskep word vir groei. Ons weet dat meeste diere redelik goed presteer as mens hulle behandel met stimulant. Wat ons wil sien is: hoe presteer die Dexter in die voerkraal as hy op sy eie tempo doen wat hy kan.

Dus net om die leser van die artikel in te lig vir ingeval hy/sy sou wou vergelyk met ander rasse en voerkraal resultate. Alle diere waarvan hier gepraat word is op 'n absolute natuurlike manier hanteer, geen dier is ooit met groeistimulante of hormone behandel nie. Geen van die kosse wat aan die diere gegee is, bevat enige hoë proteïen konsentraat (HPC) of enige van die Zilphaterol – bevattende bestanddele nie, nie in enige stadium van die voer proses nie.

Die mengsel van voer is basies dieselfde vir die verskillende toetse, wel van verskillende verskaffers en daar is toetse met verskillende verhoudings gedoen, maar sover moontlik word appels met appels vergelyk en in die proses wil ons sien wat maak die Dexter in die voerkraal.

Slegs twee van die voer scenario's gaan bespreek word, want die ander se resultate is naby aan die ter sprake en word dus uitgelaat. Die eerste scenario is waar diere gevoer is met 'n volvoer wat as klaar gemengde voer gekoop word van 2 verskillende verskaffers.

Die groei wat bereik is, was nie sleg nie, om die waarheid te sê indien jy 'n kleiner boer is wat nie altyd weet wat om met sy manlike diere te doen nie, oorweeg dit gerus om die volvoer aan te koop en sommer self jou bulkalf te voer totdat hy gereed is om geslag te word. Onderaan gaan 'n tabel volg wat groeisyfers gee.

Ter inligting, dit het wel gebeur dat die klaar gekoopte volvoer verskillende resultate gegee het. Die een het die diere beter laat groei as die ander een. Ek het toe met die verskaffers gaan gesels en uitgevind min-of-meer hoe hulle die voer maak en hoekom hulle die resep volg wat hulle volg. Die antwoord was baie eenvoudig, maar insiggewend. Basies kom dit daarop neer dat mens moet onthou dat 'n voer verskaffer homself blootstel aan gedinge deurdat hy 'n voer aan 'n privaat persoon verkoop en hy het geen beheer oor hoe daardie voer gehanteer en toegedien word van die oomblik dat dit sy perseel verlaat nie. Dus, indien hy 'n sogenaamde baie 'warm' kos verkoop en die koper volg nie die instruksies presies nie, kan dit gebeur dat die dier of diere doodgaan en dan kan die koper die voer voorsiener hof toe sleep en so iets kan slegte gevolge hê. Dus sal meeste voer voorsieners die veilige roete neem en die kos van so 'n aard meng dat dit veilig in basies enige omstandighede is. Maar kyk gerus na die meegaande Tabel en sien self dat indien jy jou eie kalf het, is dit beslis steeds die moeite werd om die kalf te voer met sulke kos, want dit gaan beslis die moeite werd wees.

Die tweede scenario is waar die voerkraal verskillende resepte self gemeng het en vir die diere gegee het. In die geval het die diere beslis heelwat beter gegroei as met die eerste scenario. Dit is wel belangrik om te let dat die kosmengsel basies bestaan uit ruvoer, mielies en dan 'n vetmaak konsentraat. As mens dan nou wonder hoe vergelyk jy prestasie, ruvoer bly altyd dieselfde en mielies bly altyd dieselfde, maar die vetmaak konsentraat is die een wat verskil van vervaardiger na vervaardiger. Hier sal die boer wat self wil voer maar bietjie moet eksperimenteer om te sien wat werk vir hom. Die voerkraal het drie verskillende vervaardigers beproef en daar is wel 'n verskil

gevind in prestasie van die beeste. As die sak inhoud spesifikasies met mekaar vergelyk word, is daar baie min verskil tussen die vervaardigers, maar hoewel daar 'n verskil was, was dit nie so baie dat dit maak dat die Dexter swak presteer het nie. In die tabel word slegs 2 van die self- gemengde volvoere weergegee en soos gesien kan word is daar nie vreeslike groot verskille nie.

Wat beteken al die syfers?

Die belangrikste om op te let is dat van die voere redelike variasie gegee het, met ander woorde soms het hulle baie goed gegroei, maar soms het hulle stadig gegroei. Dis moeilik om te bepaal hoe akkuraat 'n voermengsel in 'n verskaffer se fabriek gemeng word, maar dit kan wees dat twee

Die belangrikste ding om egter op te let is om vas te stel of die Dexter in 'n voerkraal kan werk of nie. Om dit vas te stel, sal ons na 'n paar ander faktore moet kyk. Die eerste hiervan is die algemene bestuur van die voerkraal. Die is seker die enkele grootste faktor wat die prestasie beïnvloed. Ons moet beseft dat die eenvoudige dinge, soos skoon drinkwater en die grootte van die kampe, of selfs of daar op gereelde basis vroulike diere verby stap of nie, 'n ongelooflike invloed op die diere se prestasie het. Hierdie tipe van eksperimente het daartoe gelei dat voerkraal diere selfs negatief gegroei het.

'n Volgende faktor is diere gesondheid. Ek glo dis vanselfsprekend dat die diere in 'n perfekte gesonde toestand in die voerkraal moet wees, dit

	GDT oor totale tydperk	Min GDT gemeet	Max GDT gemeet	Beste groei op een dag *	Swakste groei op een dag **
Gekoopte volvoer	0.97kg/dag	0.173kg/dag	1.73kg/dag	3.57kg	0.143kg
Self gemengde volvoer 1	1.34kg/dag	0.60kg/dag	1.83kg/dag	3.67kg	0.111kg
Self gemengde volvoer 2	1.508kg/dag	0.90kg/dag	2.2kg/dag	3.71kg	0.5kg

Notas:

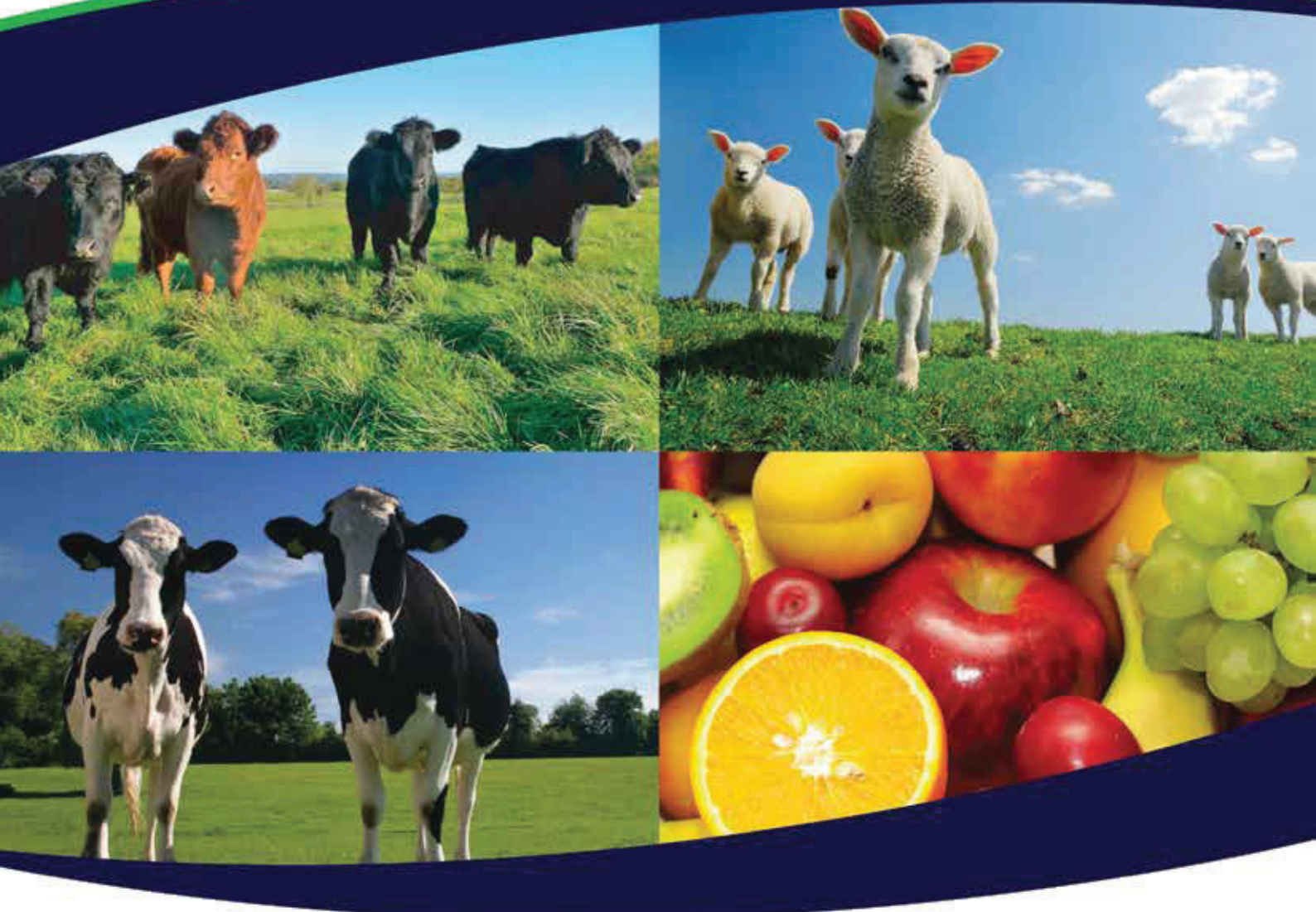
* Beste groei op een dag is nie die gemiddelde groei nie, dit is die beste wat 'n bees in die groep tussen 2 wegings ooit presteer het.

** Swakste groei op een dag is nie die gemiddelde groei nie, maar dit is die swakste wat 'n bees in die groep tussen 2 wegings ooit presteer het

mengsels nie presies dieselfde is nie, maar net so kan dieselfde in jou eie meng-proses gebeur. Wat wel gesien kan word is dat die GDT redelik verskil tussen die verskillende voer. Ook dat die Min GDT en Max GDT variasie gee vir die verskillende voer. Dan is daar 'n baie belangrike ding om te sien: Die self gemengde voer gee 'n baie meer egalige groei, m.a.w. jy kry nie die fenomeen dat goeie groei en swak groei mekaar so ernstig volg nie, jy kry 'n meer konstante groei patroon. As gekyk word na die gekoopte volvoer, sou so 'n bees oor 'n tydperk van 120 dae 116kg gegroei het, aan die ander kan sou die dier wat die self gemengde voer no.2 vir 120dae gekry het 180kg gegroei het. Mens sien dit mos nou nie uit 'n tabel nie, maar daar is gevind dat die gekoopte voer die diere baie nader aan die natuurlike patroon van groei laat groei het. Dit is met ander woorde 'n patroon waar die dier soms baie groei vir 'n tydperk en dan weer stilstaan vir 'n tydperk. Met die self gemengde voer is gevind dat die groei patroon so bietjie verander, sodat die diere baie min of soms nooit stilstaan nie, maar konstant groei.

begin by die basiese eenvoudige dinge, soos om die diere teen parasiete te doseer, te sorg dat hulle nie siektes soos longontsteking kry nie ens. Daar is min goed wat maak dat 'n dier so negatief kan groei in die voerkraal soos siektes.

'n Ander faktor om in ag te neem is hoe pas 'n Dexter aan in 'n voerkraal tussen ander beeste? As skrywer van die artikel het ek altyd geglo dat 200kg mos net 200kg kan wees, niks minder nie en niks meer nie. Egter het ek 'n belangrike les geleer. Hier volg 'n paar redes wat bestaande voerkraal eienaars aanvoer waarom hulle nie eintlik Dexters wil koop nie. Die Dexter kalf is fisies kleiner as die ander ras se kalf, al weeg hulle dieselfde. Ek kan dit nie bestry nie, daar is sekerlik 'n stadium waar hulle op dieselfde gewig dieselfde grote is, maar daar kom 'n punt waar die groter raam bees heelwat hoër word. Die idee is baie soos die van 'n Staffordshire Bull Terriër hond en 'n skaaphond. Die twee weeg op 'n skaal baie soortgelyke gewig, maar die een is heelwat laer en lyk kleiner. Hoe anders kan ek dit verduidelik? Dit is ongelukkig hoe dit is, dus is die



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Beefmax 25



Examples of Winter Licks

Raw Materials	PROTEIN				Production Lick
	55%	50%	45%	40%	
Yellow Maize	150.00	100.00	250.00	320.00	580.00
Molasses	120.00	80.00			
Cotton O/C		100.00			
Limestone	50.00	50.00	100.00	100.00	50.00
Salt	400.00	400.00	400.00	350.00	200.00
Beefmax 25 (FE3157)	240.00	240.00	264.00	228.00	120.00
Urea	50.00	15.00			
TOTAL	1 010.00	985.00	1 014.00	998.00	950.00
Composition (air dry) g/kg					
Crude Protein	554.80	502.56	453.89	405.59	254.58
% NPN	97.32	89.86	96.03	94.30	83.06
ME Ruminant	2.96	3.19	3.03	3.94	7.51
TDN	197.52	210.15	199.70	259.72	494.53
Fat	5.94	6.50	9.86	12.83	24.42
Fibre	3.86	14.31	6.41	8.34	15.87
Calcium	26.76	27.48	44.66	44.13	23.49
Phosphorus	8.78	9.76	9.78	8.86	6.07
Intake – sheep (g/head/day)	N/A	N/A	N/A	N/A	100-170
Intake – beef (g/head/day)	300-450	300-500	400-500	400-600	600-800

- A multipurpose mineral/vitamin urea containing macro pack for the use on farm for home mixed protein licks and supplements

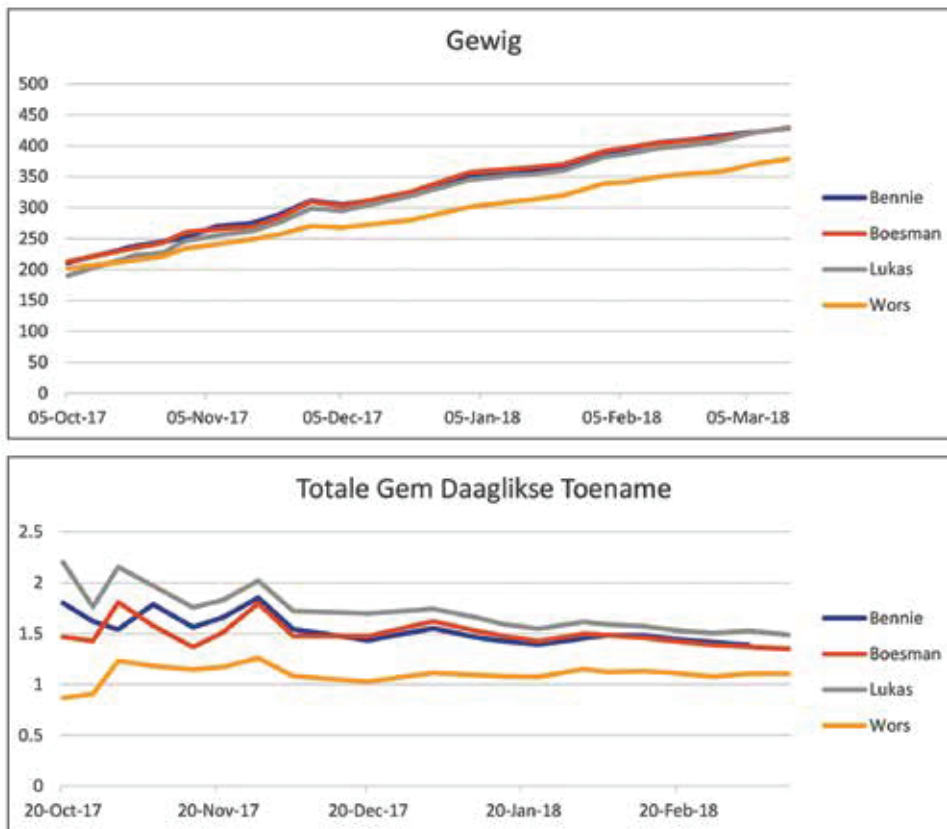
- For use on natural grass or veld during the dry season

- Farmer adds own Limestone

- Also an option available with monensin (FE3159)

Feeding Instructions

- Regulate intake. Salt inclusion may be adjusted according to feed intake
- Sufficient grazing/roughage must be available at all times
- Contains urea - protect licks against rain - animals drinking a urea solution can be poisoned
- Viniger is an effective remedy for urea poisoning
- Adapt animals gradually by feeding a salt/phosphate lick for at least 7 days before feeding a lick containing urea
- Always keep lick troughs full
- Should not be fed to horses
- Up to 120kg of Maize can be replaced with molasses



gemiddelde voerkraal nie ingename daarmee om Dexters in te neem nie, want hulle voer aan dat hulle geriewe gebou is vir die gemiddelde groter raam bees en dit maak dat die Dexters wonderlike goed kan doen, soos om om te draai in die druggang ens. Of dit die waarheid is of nie, is nie vir ons om te besluit nie. Daarmee saam is kalwers nie so bakleierig soos volwasse bulle nie. Waar 'n Dexter bul vir homself baie goed 'n pad kan oop baklei, is dit in baie gevalle so dat die kleiner raam bees geïntimideer is deur die groter raam bees, al weeg hulle dieselfde, dit maak dat hulle by die voerbak geboelie word en nie voldoende eet nie.

Dan is daar 'n baie belangrike faktor vir Dexter boere. Voerkraal eienaars is nog meestal onder die indruk dat Dexters die klein 'besies' is wat nie eintlik wil groei nie. Maak seker dat die dier wat jy insit NIE die draer van die Bulldog-geen is nie. Die voerkraal het bewys dat hierdie diere dood eenvoudig nie presteer soos negatiewe diere nie. Die tweede ding wat hiermee gepaard gaan is die basters of kruis geteelde diere. Daar is geen twyfel in my gemoed dat die kruis geteelde diere nie so goed vaar nie. Sonder uitsondering het al die kruis geteelde diere wat deur die voerkraal gesit is weggespring met geweldige syfers en die Dexters sommer vinnig uitgestof wat groei aanbetref, maar sonder uitsondering het hulle eerste begin afplat, en dit sommer vroeg in hulle tydperk in die voerkraal en al stadiger gegroei, sodat die goeie Dexters hulle

ver verby gevat het. Die hoë groei syfers wat gesien kan word, syfers waar 'n betrokke dier 2.0kg/dag en meer gegroei het, was sonder uitsondering gemeet by "suiwer" as moontlike Dexters uit goeie gene. Die swak syfers van 800g/dag en minder is sonder uitsondering gebring deur kruis diere en Dexters vanuit swak gene. Dit is hoogs aan te beveel dat boere nie hulle Dexters moet kruis in 'n poging om die sogenaamde wonder-dier te teel nie. Die Dexters wat so "suiwer" as moontlik was en uit goeie gene gestam het, het by uitstek baie goed presteer.

Wat is die optimale gewig vir 'n voerkraal? Daar is gevind dat die "Suiwer" as moontlike Dexters op 'n baie vroeë gewig begin presteer. Die kalwers wat so in die omgewing van 160kg weeg groei eenvoudig baie beter in 'n voerkraal as kalwers in die gewig klas van 250kg en groter. Dis nie dat die Dexter ophou groei as hy 250kg weeg nie, dis net dat sy gewig toename relatief baie groter is op 170kg as op bv. 270kg. Dexters groei baie gemaklik na 450kg en selfs meer, maar die bevinding is dat jy dit moet dophou en dat die optimale gewig om die Dexter te laat slag tussen 380kg en 450kg is. Indien 'n dier steeds teen 1.8 of 2kg/dag groei en hy weeg nou 380kg, maak dit beslis sin om hom te los, sodat hy nog so bietjie kan groei, want sy groei tempo is hoër as die kostes. As hy egter afgeplat het op 380kg, slag hom eerder.

Wat is die Dexter uit 'n voerkraal se uitslag persentasie? Die is seker die grootste ongelooflikheid van die Dexter. Die voerkraal wat die inligting voorsien, het al oor 60% uitgeslag, met die gemiddelde Dexter kry jy gemaklik 57% uitslag, maar jy kan beslis op 55% werk al doen jy baie dinge verkeerd. Dit maak nie saak hoe jy hierna kyk nie, hierdie is baie goeie prestasie en dit maak dat jou bees wat jy aan die slagpale lewer baie meer winsgewend word. As jy dus 'n dier van 400kg slagpale toe neem en hy slag 57% uit, dan verkoop jy 228kg vleis. As dit verhandel word teen A of AB prys, kan jy sien dat jy goeie besigheid doen.

Die toetse het bewys dat die diere, net soos wat almal reeds sê wel tussen 3% en 4% van sy eie liggaam se massa per dag eet. Dexters eet nie persentasie gewys minder as ander rasse nie. 'n Dexter wat 'n redelike swak GDT van 1.35kg/dag het, groei 140kg in 103 dae en dan eet hy ongeveer 'n ton kos op. Dan is so 'n bees op 212kg in die voerkraal ingesit. Die bevinding was dat die gemiddelde Dexter 1.2ton kos oor 'n tydperk van 120 dae eet. 'n Groter raam bees wat op 310 kg ingesit is, eet in 105 dae 1.4 ton kos en dan groei hy 105kg, maar daarmee kan nie gesê word dit is die norm waarteen groter raam beeste groei nie, want

dit was een toets net om bietjie vergelykende syfers te kry. Jy kan dus seker wees wat jou bees gaan eet en dit maak dit ook makliker om te vergelyk met ander rasse.

Die vraag bly steeds bestaan: kan 'n Dexter in 'n voerkraal presteer? Vanuit al die inligting hierbo, is die antwoord beslis "JA". Indien jy kos aankoop en dan ook nog Dexter kalwers wil aankoop, is dit dalk nie so winsgewend soos jy dink nie, maar indien jy jou eie bees het, kan jy maar kos aankoop, veral as in ag geneem word dat die algemene voerkraal nie altyd baie lus is om Dexters te koop nie. Dan is dit beslis die moeite werd om self te voer, eerder as om die kalwers vir 'n appel en 'n ui op 'n veiling te verkoop.

Al wat oorbly om te sê is dat die leser van die artikel moet weet dat al die syfers gemiddeldes is. Moenie verbaas wees as jou Dexter teen 2kg/dag en self beter groei in dieselfde toestande as hierbo beskryf nie. Dit is glad nie ongehoord nie. Onthou dat al die data bymekaar gemaak is met swak beeste en goeie beeste en kruis beeste, asook beeste van verskillende gewigte. Baie van die faktore maak dat die gemiddelde syfers baie anders lyk as dit wat in die werklike toestande bereik word.

Spree DEXTER



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Kyk na die resultate en maak self die somme!!

Die Veeplaas HENDRIK POTGIETER Dexter Stoet

Landbouskool Hendrik Potgieter te Reddersburg het op die 21ste Februarie 2017 die nuwe tuiste vir die Veeplaas Hendrik Potgieter Dexter stoet geword. Die diere is deur telers van die Dexter-beestelersgenootskap geskenk. Die telers is ORB Dexters, Amadeus Dexters, Wessenhof Dexters, Zandu Dexters, Stilhou Dexters, Tomar Dexters en Onyx Dexters. Die Dexter-beestelersgenootskap was voor die vestiging van die stoet reeds by die skool betrokke deurdat diere vir die kinders beskikbaar gestel is om sodoende aan jeugskoue deel te neem.



Van die skool se jeugskou kinders by die Dexters

Landbouskool Hendrik Potgieter presteer met hulle Dexters in 2017

Volgens Mnr. Christi Swarts, Skoolhoof van Landbouskool Hendrik Potgieter, was dit 'n groot voorreg vir Landbouskool Hendrik Potgieter om vanjaar vir die eerste keer met hulle eie Dexterstoet aan die Sentrale Dexter Kampioenskappe in Bloemfontein te gaan deelneem. Die Kampioenskappe het plaasgevind tydens die 2017 Bloemskou. Die skool het 5 diere vir die skou voorberei en ingeskryf en ook hulle eie stal beman.

Hoekom wil die skool skou?

“Die rede van die deelname was hoofsaaklik onderrig-gebaseer. Ons wil leerders reeds op skoolvlak die opset en werking van sulke skoue leer. Die teorie van jeugskoue (Reddersburg het die grootste jeugskouklub in die Vrystaat) moet by die praktyk uitkom, daarom was die leerders van die skool verantwoordelik vir die was, voorbereiding en vertoon van die diere”. Die skou was volgens Mnr. Swarts voorwaar 'n leersame ervaring vir die leerders gewees.

Van die kudde se prestasies met hulle eerste skou sluit die volgende in:

- Kleinhoefies Wisseltrofee vir beste Kleinkudde manlik en vroulik 1-10 diere op die skou is deur die skool verower.



Dexter telers wat die dag kom bywoon het en personeellede van Landbouskool Hendrik Potgieter



Paar van die stoet se verse

- Zandu Ella, een van die skool se beste, het die afdeling, koei droog 30-36 maande, gewen.
- Mieke Swarts het die Amadeus Dexter Senior Jeugskou Wisseltrofee gewen.
- Daniel Lombaard het met die Amadeus Dexter Junior Jeugskou Wisseltrofee weggestap.
- Verder het al die skool se leerders plekke behaal in die hanteerdersklas.



Ockie Barnard, voormalige president van die Dexter genootskap, aan die woord tydens die oorhandiging



Daniel Lombaard in die ring tydens die Bloemskou



Die skool ontvang die Kleinhoefies wisseltrofee wat hulle op die skou gewen het. Agter LnR - Hendrik Strydom, Christi Swarts (skoolhoof), Gerald Jaeger, en Johan Daffue.

Voor LnR - Miela Giebson, Daniel Lombaard en Mieke Swarts



Leerder van Landbouskool Hendrik Potgieter by hul stal by die Bloemskou LnR Mieke Swarts, Daniel Lombaard en Miela Giebson.

Fees@lanties

Die fees@lanties wat Landbouskool Hendrik Potgieter jaarliks aanbied, is op 12-13 Mei 2017 gehou. Tydens die fees was daar onder andere sport soos rugby en netbal wat gespeel is tussen verskeie skole in die omgewing, wolskeer kompetisies asook die jeugskou. Die SA Dexters se uitstalling was ook die dag te sien langs die sportvelde en is beman deur Johan Daffue en Ockie Barnard. Uitstekende resultate is deur leerlinge van Landbouskool

Hendrik Potgieter behaal tydens die jeugskou en die volgende wenners is opgelewer:

- Melkbokke: Junior Junior – Janah Swarts
Junior – Enrico Lombaard
Senior – Eloise Verwey
- Vleisbokke: Junior – Carli Jacobs
- Melkbeeste: Junior – Mieke Swarts
Senior – Geysler van Zyl
- Vleisbeeste: Junior Junior – Daniel Lombaard
- Konyne: Junior Junior – Zenith Conradie
Junior – Celine Taute
- Wedvlugduif: Junior – Flippie Goodchild
Senior – Kimaine Edwards
- Hoenders: Junior Junior – DJ Coetzee
Senior – Monique van Aswegen
- Vleisskape: Junior – Jana vd Merwe
Senior – Wilmie vd Merwe
- Kulinêre kuns: Junior – Talita Lock
Senior – Marius van Vuuren

Jana van der Merwe kry dan ook die wisseltrofee vir die beste Junior skouman.

Die fees@lanties was weereens 'n groot sukses en 'n ideale geleentheid vir leerders in die Vrystaat om aan 'n jeugskou deel te neem.

ALFA 2017

Alhoewel ALFA nog net is sy tweede bestaansjaar is, is dit ten volle ondersteun deur Landbouskool Hendrik Potgieter. Gedurende ALFA het 13 skole van regoor die land meegeding om die titel van ALFA landbouskool van die jaar. Om die wenner vir die titel te bepaal was daar verskeie kompetisies gehou waarna die wenner bepaal is op grond van die meeste punte. Afdelings waarin die skool meegeding het, was onderskeidelik Jeugskou, Vasvrakompetisie, Interraskompetisie, Sweepklapkompetisie en 'n Wolhanteringskompetisie. Landbouskool Hendrik



Die Dexters se uitstalling langs die sportvelde by die fees@lanties.



Potgieter het geensins teruggestaan vir die ander skole nie. Hulle het 'n eerste plek in die JSE wolhanteringskompetisie behaal en ook algeheel 5de geëindig. In die jeugskou kompetisie het Daniel Lombaard 'n derde plek behaal in die juniorklas vleisbees afdeling.



Die stoet se eerste kalf gebore in Oktober 2017



Hendrik Potgieter se ALFA deelnemers, saam met Mnr Christi Swarts, E.P. Nel en W.A. Lombard, tydens die afsluitings dinee by ALFA.



Hendrik Potgieter het die Veiling van Kampioene en opleidingsdag kom ondersteun op die 21ste Oktober 2017.



DIE SKOOL BIED JOU

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- Verteenwoordiging in provinsiale en streekspanne



**Landbouskool
Hendrik Potgieter**

Reddersburg
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DIE KOSHUIS BIED JOU

- Toegewyde personeel
- Lekker huislike atmosfeer
- 'n Groot familie wat omgee
- Leeratmosfeer
- Goeie dissipline
- Opgegradeerde fasiliteite
- Busvervoer na Bloemfontein





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Bul: Lundi Rooimoer – R26 000 verkoper: Lundi Dexters Koper: A&A Dexters

Vroulik: Zwawelpoort Wendy II – R14 000 verkoper: Zwawelpoort Dexters Koper: Maggiesdal Dexters

2016 (8^{ste} veiling)

Bul: Floramanzi Caesar – R15 500 verkoper: Kobus Ehlers Dexters Koper: Lida Erasmus

Vroulik: Zwawelpoort Mooiding II – R9 000 Verkoper: Zwawelpoort Dexters Koper: Lida Erasmus

2017 (9^{de} veiling)

Bul: Zandu Tobie – R37 500 verkoper: Zandu Dexters Koper: Maggiesdal Dexters

Vroulik: Zwawelpoort Willa I - R15 000 verkoper: Zwawelpoort Dexters Koper: Dr. Frits Hoogendijk

SA rekordpryse

1^{ste} Produksieveiling van groep van 5 telers – Bloemfontein



VLNR: Sam Quena, Louisa en Johan Strydom (Kopers), Leon Goosen (Afslaer) en Hendrik Strydom (Verkoper)

Vier SA rekord pryse is gebreek op die eerste produksieveiling van vyf telers. Fred, die bul, is verkoop vir R100 000 aan Johan en Louisa Strydom van Aliwal-Noord. 'n Dragtige vers is verkoop vir R45 000 aan Johan en Louisa Strydom, Hendrik Strydom is die verkoper. 'n Dragtige koei is verkoop vir R35 000 aan Hendrik Strydom van Petrusburg. Die verkoper was Johan Daffue van Bloemfontein. 'n Oop vers is verkoop vir R33 000 aan David de Villiers van Johannesburg en die verkoper was Hendrik Strydom.

Die gemiddelde prys vir dragtige verse was R14 625 en oop verse R20 500. Kommersiële dragtige verse gemiddeld was R9 500 en oop verse R4 215. Nog 'n bul is verkoop vir R40 000.00.

Die veiling is hanteer deur Peter McEvan Livestock cc. Leon Goosen was die Afslaer.

2^{de} Produksieveiling van groep van 5 telers – Bloemfontein



VLNR: Leon Goosen (Afslaer), Coenie Bester (Koper), Hendrik Strydom (Verkoper) en Sam Quena (Hanteerder)

Hierdie oop vers, Amadeus SN Lindie 2, is verkoop vir die hoogste prys van R37 000 op die tweede produksieveiling van vyf telers. Die koper is Coenie Bester van Kliprand Dexters, Hartbeesfontein en die teler is Hendrik Strydom van Petrusburg. Die duurste dragtige koei is ook deur Coenie Bester vir R33 000 van Hendrik Strydom gekoop.

Die gemiddelde prys vir koeie met kalwers was R14 857, dragtige koeie R21 833, dragtige verse R13 500 en oop verse R21 929.

Die veiling is hanteer deur Peter McEvan Livestock cc. Leon Goosen was die Afslaer.



Classification of Red Meat*

A key to more effective marketing



Classification provides a sound basis for:

- Meat traders to describe their specific requirements in simple terms when purchasing carcasses.
- Utilisation of variety in the market with a view to optimum consumer satisfaction.
- Utilisation of price differences.
- Determining selling prices.

CLASSIFICATION CHARACTERISTICS OF: Beef, Lamb, Sheep and Goat Meat

AGE	CLASS
0 Teeth	A
1-2 Teeth	AB
3-6 Teeth	B
More than 6 Teeth	C
FATNESS	CLASS
No fat	0
Very lean	1
Lean	2
Medium	3
Fat	4
Slightly overfat	5
Excessively overfat	6

CONFORMATION	CLASS
Very flat	1
Flat	2
Medium	3
Round	4
Very round	5
DAMAGE	CLASS
Slight	1
Moderate	2
Severe	3
SEX	
The carcass of a ram or a bull as well as of a hamel, a kapater or an ox showing signs of late castration of the AB, B or C age classes, are identified.	

MARKS FOR CLASSIFICATION CHARACTERISTICS ON: Beef, Lamb, Sheep and Goat Carcasses

TRAIT	MARK	WHERE ON THE CARCASS
Age (A, AB, B, C)		One mark on each quarter of beef carcass.
Fatness* (0 to 6)		Only one mark on the carcass for lamb, sheep and goat carcasses.
Conformation (1 to 5)		One mark on each side of beef carcasses. No mark for lamb, sheep and goat carcasses.
Damage** (1 to 3)		Taking into account the area of damage, one mark on each side for beef carcasses. Only one mark on the carcass for lamb, sheep and goat carcasses.
Sex		One mark on each side of beef carcasses. Only one mark on the carcass for lamb, sheep and goat carcasses.

* In case of a sheep carcass with a fat tail, a double impression of the mark.

** Damage, if it occurs, is indicated on a scale of one to three for the areas concerned, viz B (buttock), L (loin) and F (forequarter).

EXAMPLES OF THE ROLLER-MARK COMPOSITIONS FOR: Beef, Lamb, Sheep and Goat Carcasses*

AAA ABAB BBB CCC	- Age class of the animal as an indication of tenderness.
000 000 000 000	The A age class is roller-marked in purple (most tender), AB carcasses are in green (tender), B in brown (less tender) and C in red (least tender)
ZWZ ZWZ ZWZ ZWZ	
AAA ABAB BBB CCC	
000 000 000 000	- Fatness class** of the carcass.
ZWZ ZWZ ZWZ ZWZ	This symbol can be replaced in the roller-mark by 111, 222, 333, 444, 555 or 666.
AAA ABAB BBB CCC	
000 000 000 000	
ZWZ ZWZ ZWZ ZWZ	- Abattoir-identification code.

* All goat carcasses are roller-marked in orange, taking into account the age of the animal (AAA, ABAB, BBB or CCC).

** The amount of visible fat can be evaluated by the consumer and selected according to preference.

CLASSIFICATION CHARACTERISTICS OF: Pork

% MEAT*	mm**	CLASS
≥70	≤12	P
68-69	13-17	O
66-67	18-22	R
64-65	23-27	C
62-63	28-32	U
≤61	>32	S

No specifications in respect of % meat apply in the case of Rough, Sucking pig (<20kg) and Sausage pig (>100.1kg).
** In case of Intrascapular.

FAT THICKNESS**
% MEAT*
Only in case of the Hennessy classification apparatus.

CONFORMATION	CLASS
Very flat	1
Flat	2
Medium	3
Round	4
Very round	5
DAMAGE	CLASS
Slight	1
Moderate	2
Severe	3
SEX	
The carcass of a boar as well as of a barrow showing signs of late castration, are identified.	

* Measured between 2nd and 3rd last rib, 45mm from carcass midline.

MARKS FOR CLASSIFICATION CHARACTERISTICS ON: Pork Carcasses

TRAIT	MARK	WHERE ON THE CARCASS
Conformation (1 to 5)		One mark on each side.
Damage* (1 to 3)		Taking into account the area of damage, only one mark on the carcass.
Sex		One mark on each side.

* Damage, if it occurs, is indicated on a scale of 1 to 3 for the areas concerned, viz B (buttock), L (loin) and F (forequarter).

MARKS FOR CLASSES OF PORK:*

CLASS	MARK	WHERE ON THE CARCASS
Sucking pig	S	One mark on forehead.
P, O, R, C, U & S	P, O, R, C, U & S	One mark on each side.
Sausage pig	W	One mark on each buttock.
Rough	RU	One mark on each side.

* The class of a pig carcass is not roller-marked on it. Some pig carcasses may be roller-marked in purple ink with a specific abattoir-identification code/trademark.

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*Meat Classification Regulations No. R. 863 in Government Gazette of The Republic of South Africa, 1 September 2006.

A modern sustainable breeding strategy for Dexter cattle to adapt to and mitigate the effects of global warming

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Introduction

A modern sustainable breeding strategy for Dexter cattle to adapt to and mitigate the effects of global warming

Handling the vagaries of climate change will be a sure challenge for South African agriculture (Climate Change sector plan for Agriculture, Forestry and Fisheries, Government gazette, Notice 7 of 2013). The interior temperature of South Africa is estimated to rise by 2 to 3 °C by 2050 (Department of Environmental Affairs, 2010) and by 4 to 7 °C by the end of the century, if the release of greenhouse gasses (GHG) is not limited (Engelbrecht et al., 2015). Moreover, the rainfall will be much more variable (Lennard et al., 2016). The country's most recent vulnerability was displayed during the 2015 drought, which was the warmest year ever recorded and was accompanied by extreme heat (Scholtz et al., 2016). The beef industry is but one of the agricultural sectors that need to focus on both adaptation and mitigation strategies to GHG emissions and global warming, notwithstanding the constant pressure for increased production levels (Scholtz et al., 2013; Roughsedge et al., 2001; Prayaga, 2004; Mokolobate, 2015).

Breeding strategies for Dexter cattle breed should enhance their adaptive capacity and need to be sustainable. Genetic improvement in adaptation and mitigation options is possible, whereby production efficiency can be improved (with limited additional inputs costs and environmental effects) (Wall et al., 2010; Scholtz et al., 2013).

What should a modern breeding strategy for Dexter cattle include?

A high reproductive rate is the most fundamental factor to the overall efficiency of a beef cattle enterprise (Long, 1980; Moyo et al., 1996; Skrypzeck et al., 2000). Fertility traits should therefore be the first and foremost components of a breeding strategy for a herd. According to Scholtz (2010) the average age for first calving is around 28 months and the average inter calving period for cows in the breed is

around 367 days. This is remarkable in comparison to other cattle breeds in South Africa, but an opportunity for improvement does exist. Supplementary to these traits is the measurement of the weaning rates and the weaning weights of the calves of individual cows in the herd on which cow efficiency are also largely dependent.

In Dexter cows that are not milked, cow cost correlates directly with her feeding cost, but correlates inversely with the weaning weight of her calf. The average calf weight/cow weight ratio in the Dexter breed is 55% (Scholtz, 2010), which may be the highest of all cattle breeds in South Africa. However, this expression of cow efficiency is generally not being accepted any longer. New measurement technology of cow efficiency in this regard deviates from the old expression of the calf weight/cow weight ratio. In using this ratio as part of a breeding strategy, both weights can vary simultaneously to give you the same result. This ratio also does not allow for the consideration of the increased nutritional requirements (input costs) of loftier cows. A sophisticated Large Stock Unit (LSU) calculator (by Nesor, 2012 and Mokolobate, 2015) can be used in the measurement of cow efficiency to calculate kg calf weaned/kg LSU of the cow, since LSU's can be linked to the daily feed intake requirements of the cow. The new general formula to calculate LSU in small framed beef cattle such as in the Dexter breed, is as follows:

$$Y = 0.2871428571 + 0.0025542857x - 0.0000005714x^2$$

where Y = LSU and x = cow weight at partus

These equations are used to determine the relevant LSU to estimate cow efficiency in reproductive cows. The average cow efficiency of the Dexter breed that is calculated with this equation (a calculator that is developed by the ARC will be made available through the internet next year) is in the order of 151 kg calf/LSU in comparison to estimated averages of 145 kg calf and 113 kg calf/LSU in the medium Bonsmara and large Charolais breeds respectively.

How to improve on fitness

Dexter cows usually have high fitness. Established producers usually cull non-pregnant females on an annual basis. However, emerging producers that endeavour to build a larger cattle herd cannot at times apply such a reason for culling. It is suggested that a breeding strategy that simultaneously considers traits of reproduction and production should correspondingly be estimated as follows:

$Y = \text{Weaning rate} \times \text{Kg calf/LSU}$
where Y = cow efficiency.

This calculation of Dexter cow efficiency allows for a holistic approach of cows that are not being milked to be ranked and selected for future breeding purposes. The calculation automatically puts more pressure on younger females with less calves to have increased performance in relation to older cows that will be phased out. For increased levels of fitness producers can also put pressure on heifers and cows that calve down late in the season.

A breeding strategy that increases cow efficiency by means of increased output and reduced input will support and facilitate the implementation of climate change adaptation and mitigation measures.

The incorporation of breeding values

Cattle breeders often use breeding values for a number of economically important traits as a basis for selection or for a breeding strategy. While breeding values and economic indices assist with the comparison of animals from different herds and for corrective mating purposes, these values are difficult to use in the ranking of female animals for cow efficiency in a herd. In the absence of breeding values or selection indices for cow efficiency, breeding values should therefore only be used as a tool for what they are intended for. Stud breeders will however be imprudent not to generate these values for the animals that they wish to sell.

Dexter cows that are milked

A well-defined breeding strategy for sound genetic improvement in Dexter cows that are milked still needs to be developed. Economic values for relevant milk traits will depend on adequate bio-economic data that may remain insufficient for time to come. In the mean time the much debated a2 gene has also been discovered in Dexter milk. Apart from the Holstein, the gene is also plenteous in other dairy breeds such as the Guernsey and Jersey, and common in African, Indian and Asian cattle. Whether there is a definite health benefit to milk containing the a2 genetic variant is still controversial. Consumer demand can however create the motivation for niche markets to develop. The commercial use of a2 test results and persons that form a herd of animals to produce and sell milk with reduced beta-casein a1 may conversely fall within the scope of intellectual property rights

with its own regulations.

In those herds where milk production is important, participation in the milk recording scheme is important.

Conclusions

A breeding strategy for cattle should simultaneously increase output and reduce input costs. Increases in cow efficiency (weaning rate x kg calf/large stock unit) is mainly derived from differences in fitness, frame size and relationships between calf weight and cow LSU. The fact that there are large differences in cow efficiency in reproductive cows, points to genetic differences and holds the potential for cow ranking and improvement through selection in contemporary groups. The estimated average cow efficiency in the Dexter cattle breed may be unsurpassed by other cattle breeds. This breed resource holds the potential to be used as a drive towards reduced resource use and a reduction in the carbon footprint per unit of product produced.

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Nedbank ESTON AGRICULTURAL SHOW

The Nedbank Eston Agricultural Show took place on 26 & 27 August 2017. Part of the program was the Annual Youth Show, sponsored by De Heus, which boasted 18 children between the ages of 2 and 16 years. A fun-filled day for the children saw them grooming and preparing their animals, partaking in an age related oral exam regarding care and husbandry followed by a parade in the main arena where the children were judged on their stockmanship. Dexters were represented by the Minimoo Stud of Frank Hinze, situated in Howick, South Africa. Ruben's Minimoo Core was the proud winner of the best animal on show and our beloved breed enjoyed significant awe and attention.



Ruben busy with the oral exam



The three youngsters - grooming and preparing the Dexters



Tristan with minimoo Adelle



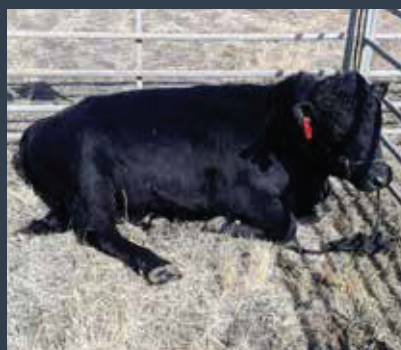
This was the business end of the Eston Show - the three young boys parading Adelle, Core and Heidi. Minimoo Core (middle) was the proud winner of the best animal on show



Ruben with Minimoo Core



Posing for a photo after a successful show



Minimoo Core after a hard days work



Reinhard with Minimoo Heidi

Dexter ledelys

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