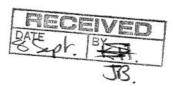
1) 4/9/09 DNO



MEMO TO BILL HEFFERMAN

WOUND DO WITHOUT YOU. KEEP IT UP. WE HAVE TO WIND SEYMOUR EVERYM MEEWEN JUST WHERE THE MORTH-SOUTH PIPOLING M. I.S. TO MERBOURNE IN BEILD BUILT. !

WE STARTED THE FIRST MIS CATTLE SCHEME
WITH ENVIRONINVEST ON KING ISLAND IN JUNE DORZ

WITH ENVIRONINVEST ON KING ISLAND BECAUSE OF ITS. REMAINABLE
I RECOMMENDED KING ISLAND BECAUSE OF ITS. REMAINABLE
CHIMATE, MY SAN PULLED OUT WHEN THEY WOUND NOT
PRAVIDE RESOURCES OR PAY THEIR BILLI BEFORE
PRAVIDE RESOURCES OR PAY THEIR BILLI BEFORE
THEY DOWN BUT TO GREAT SOUTHERN FOR A

RUM OURED & 60 MILLION.

MURRAY GRANT MANAGED TO GYTRALT US.
FREM EN VIRANIA VOST HE HAD TO SIGH CALFIDENTIALITY
PACREMENTS OUR SOLICITOR WAS M. SMITH MILLS
PACLEY

PAKLEY

WHILE THE HEAT IS & TIMBER CHAP & GREAT

SONTHERD EN VIRANIA VAT SHOWED BE LOOKED

RT VERY CLOSELY AS. WELL. OUR NAME WAS

USED TO GET THE CATTLE PROJECT OFF THE GROWN



THE CATTLE ON KING ISLAND WERE IDENTIFIED

BY W. LIS AND AN INDIVUM THE

HOWEVER YOU ARE AWARE THAT THIS LEVEL

MANDERMENT CANNOT BAIST IN THE WARTH.

CONTAUTS THAT COND BE USEFUL

(1) JOHN GUNTMONIE - MELID SET VID THE CATTLE PROJECT WAS GM ON CHVIRDIN VOTE PREVIOUS MISTORY IN CLUBER SOTTING UP A.M.M. FROM SMORGON ELDERS ETC

PHONE DUDO 403. 456 J. GULTMORNE

(2) MURRAY BRANT - EX VET IN YEA RING CHEMVET - DRENCH LAMIANY BY DIRECTOR O. F.M. PUBLIC COMPANY - ETHICAR - EXTRACTOR VS FROM KING ISLAND PROJECT O417 543. 513

3 MICHAEL SMITH PARTHER MILLS. DAKLEY SOLICITORS 03 9605 0823, HAD TO DEAL WITH GAVIRONIA VEST THIS. PROJECT FALCO BECAUSE GOOD

HANDS ON PEOPLE AT THE COME FALE

DID HOT GET SUPPORT. I THINK

ENVIRONIA VOIT WORE PROBASSY INSOLVENT

BY ABOUT DOOY. AS THEY MAD PROBLEMS

PAYING FOR FUEL DREWCH ELT EVEL

THEN

YOU MAY NOOD TO OBTAIN S BUNTIJES ACROUNTI FOR CATTLE
TRADIA'S FROM ELDERS!

There Proprie Have DAMAGED THE RURAL SECTORS INTEGRITY 60 FOR IT.

Best Wisness

Dan Lam

WHY HAVE THE LAWSONS INVOLVED IN THE PROJECT? WHO ARE THE LAWSONS?

The Lawson family own and operate Livestock Improvement Company. The family have a long and successful instory in managing and breeding superior quality Angus on over 3,000 hectares of land in North East Victoria.



Don Lawson (left) receiving the OAM.

It should be noted that past performance is not necessarily a guide to future performance and should not be relied upon as indicative of future performance.

The focus of the Lawsons has been the development of a large scale performance recorded Angus seedstock business (cattle including semen and embryos that are registered specifically for breeding purposes, seedstock businesses are often referred to as "studs"). Bull selection is undertaken with an emphasis on calving ease, fertility, rapid growth to maturity, moderate mature cow size and high marbling potential carcase traits.

The Lawsons' commitment to improving the quality, consistency and predictability of their clients' progeny is evidenced by the fact that every calf they breed is bred by artificial insemination or embryo transfer to control the genetics and record the steers performance in a structured progeny testing program. The policy of 100% artificial insemination and embryo transfer has enabled access to high performing Angus bulls both in Australia and overseas, particularly the United States. The Lawsons' Angus herd is one of the few herds in Australia where their bulls are supported by detailed recording of their genetic history and performance.

Part of the uniqueness of the family operation is the large network of cooperator herds, both nationally and internationally. The Lawsons have a partnership with Gardiner Angus Ranch of Kansas, USA, the two operations of the family operations of the family operations.

are the second largest seedstock pro in the world. This relationship invol annual importation of Angus embryo some of the best sires and dams (fer available in the United States.

Progeny testing is now an on-going program involving artificial insemin several thousand females in co-ope commercial herds. Recording the performance of the progeny agains genetic history is the most accurat method to make progress and cont desired animal traits.

This progeny test program called the Australian Angus Alliance is backen Meat and Livestock Australia and the largest R&D projects of its kirworld.

The Lawsons have agreed to man Project and give Graziers access intellectual property and improve buils. The Lawsons believe there significant opportunities in operanonmercial herd that combines genetics with developed grazing management systems.

The Project will leverage off the alliance and networks developed Lawsons Angus over the last 30 am, to achieve a premium compart of Angus cattle.

# WSONS ANGUS INDUSTRY

rsons Angus is well recognised within industry. Awards include;

Largest single vendor Angus Bull sale in Australia in 2002

1999 Gold Medal Best Feedlot Beef at Grand Final National *Paddocks to Palates* Competition

Best Performer 1997-2001 National Paddocks to Palates Competition for Lawsons Beef

Australian Record Angus Bull Sale 1999 and 2000

Australian Record Angus Female Sale 1999 and 2000

1998 National Seedstock Producer of the Year

1998 Victorian Seedstock Producer of the Year

1997 Victorian Seedstock Producer of the Year

2000 Don Lawson, Victorian State Government Working Group, Bovine Johnne's Disease

1992 Don Lawson, The Beef Improvement Association Howard Yelland Award

January 2002 Don Lawson, OAM for services to the beef industry through the development and application of genetic selection and breeding technology, performance testing and objective measurement.

## THE LAWSONS MANAGEMENT TEAM

As may be seen from their experience and qualifications, the team that make up the Lawson family and those people who work with them in Livestock Improvement Company, are highly trained and motivated. They have supplemented their academic pursuits with extensive experience in farm management and genetics within the Australian and international arena.

#### Donald B Lawson

OAM

Principal, Lawsons Angus Director, Livestock Improvement Co Pty Ltd M.Ag.Sc(NZ) in Agricultural Business Management

Don founded Lawsons Angus in 1968 and was a pioneer in performance recording in Australia. Don lectured in farm management at Marcus Oldham College and has continued to be a consultant to the industry in farm management for 30 years.

He was a founding committee member of the Beef Improvement Association ("BIA") and was the President for over 15 years. He was a member of the National Beef Recording Scheme that was responsible for implementing Breedplan. He was active in the commercialisation of Breedplan in both Australia and New Zealand. Don was a recipient of one of the beef industry's highest honours, the Howard Yelland trophy in 1992 and is currently a director of the Australian Beef Association ("ABA").

His role as an industry leader was recognised in the 2002 Australia Day Honours when he was awarded an OAM for services to the beef industry through the development and application of genetic selection, breeding technology, performance testing and objective measurement.

## Harry Lawson

Principal, Lawsons Angus Director, Livestock Improvement Co Pty Ltd B Ag Science (Hons)

Harry graduated with a Bachelor of Agricultural Science (Hons) specialising in Animal Breeding, Reproduction and Farm Management.

He has extensive international experience, including travelling and working throughout Asia, Europe and America. His extensive knowledge of production and genetics has been an integral part of the rapid development and marketing success of the Lawsons.

Harry's work in the UK included the implementation of genetic evaluation systems for UK beef farms. Harry and his brother Tom Lawson created the genetics division of Elders Limited known as Integrated Genetic Management.

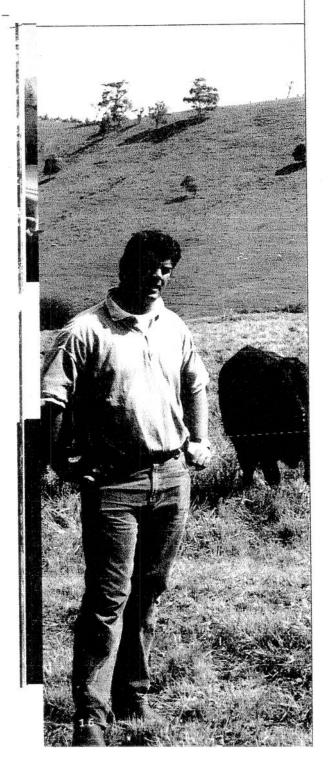
A key factor in the success of the Lawson's flagship company, Lawsons Angus, growing five fold to be Australia's largest privately owned Angus cattle genetics business and operating more than 1500 seedstock females, has been the total system approach to modern farm management practices and in particular the unique grazing and genetics systems developed by Harry and Tom Lawson.

### Thomas Lawson

Principal, Lawsons Angus Director, Livestock Improvement Co Pty Ltd B Ag Science

Tom commenced his Bachelor of Agricultural Science degree in Australia and completed his final year at Davis University, California.

Tom has extensive international beef production and genetics experience, studying and working in the United States. WHY HAVE THE PROJECT MANAGED BY THE LAWSON'S?



During this time he developed a network of contacts in seedstock and commercial beef herds and highly specialised Agricultural Universities. These networks are one of the Lawsons' greatest strengths.

Tom is integral in the development of suitable grasses and cell grazing structures. He is a world-class animal breeder and unique in his ability to combine genetic theory with practical animal breeding.

## Kim Bone (left)

Production Manager, Livestock Improvement Co Pty Ltd

Kim has extensive management experience in New Zealand, Australia and the United States and has worked in and visited leading Angus seedstock herds in both New Zealand and the United sates.

Kim's expertise lies in intensive grazing systems, feed budgeting and efficiency, animal nutrition and health. He has played a pivotal role in the development of Livestock Improvement Company's grazing systems.

### Carolyn Ebeling

Director, Livestock Data Services Pty Limited B Ag Science (Hons)

Carolyn is a Director of Livestock Data Services, an external service provider to the Lawsons. She provides professional expertise in the management of cattle breeding programs, performance records and cattle identification systems. She is also manager of the Australian Angus Alliance Progeny Test Program, responsible for the collation and analysis of data from birth to slaughter of progeny.

Carolyn has a vast depth of academic and practical experience in the beef industry. She is committed to maintaining a position at the forefront of the beef industry and has previously tutored to tutor at the

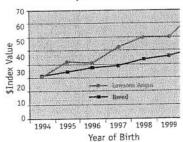
University of Melbourne in the disciplor of nutrition, reproduction, physiolog genetics, behaviour and managemen animal production systems.

## SUPERIOR GENETICS

Don Lawson is a pioneer in perform: recording and the implementation o "Estimated Breeding Values" (EBV's EBV's measure desirable traits relat fertility, growth, maternal abilities,  $\epsilon$  calving and carcase performance.

The objective measuring of an anim performance has resulted in Lawsor cattle achieving a clear and measuragenetic edge over industry standard most competitive studs. For exampl Japanese B3 Index (the name for the standard Angus indicator for prices achieved in for Japanese beef) is significantly higher for the Lawsons as compared with all Australian Angusires for the period from 1984 to 20

Lawson vs Angus Breed fo Japanese B3 \$Index



Source: Angus Society of Australia

Factors attributing to the success ( Lawson's developing superior geneinclude the following;

- utilisation of technological adv;
- research and development;
- · livestock recording systems;
- marketing relationships; and
- pasture improvement and graz systems.

TAHR TO HZ FARMEN GORF HISCALI HELLISTEN MANKEY WAY

OF PARMENTAL NORTH TYLY OG

# CLIMATE CHANGE AND LIVESTOCK

# INTRODUCTION

I believe our farmer organizations have been too passive in protecting the Unless we become like the French or U.S. agricultural industries. farmers, we will suffer unfair and unwanted taxes that will send livestock farmers to the wall!

We need to look to the farmers of France for real leadership.

However, there are facts we can all agree upon.

Anyone with any knowledge of geology would know that in the past 550 million years, from the Cambrian era to the present time, carbon dioxide Parts per Million have varied from 6,000 to only 200. In that same time, global temperatures have varied from 12 to 23 degrees Celsius.

Geologists seem to have been left out of the current debate!

TAKE HOME MEMALO () FOOD PRODUCTION + PROCESSING LARGET INDUSTRY IS N. Z NIC 2) HOWEVER WE PORE POLITIMILY & MIJERITY GROVI? 3) NEED TO LOOK OF HOW FRENTY MINDEITY GRESPI PROTECT THEMSELVES -IT WAT by BOISS NICO Presented by Don Lawson @ 1 July, 2009 MELBONKHE IF BRVMBY TRIES TO USO

THE HORTH/SOUTH PIPELILE

Geologi ni Era Millian Lear Ago Carbon Dioxide gom 4-Godon Lempe	
	mar r
Cambrian 550 6,000 23	
Ordovician 4-0 4,200 23 - 1.	?
Siturian 430 3,500 17 - 23	
Devonian 380 2,100 23 20	,
Carboniferous 320 1,000 - 200 20 - 1.	?
Permian 2=0 200 - 1,900 12 - 2.	
Triassic 230 1,500 23 2.	?
Jurassic 1"0 2,000 22-16	>
Cretaceous 110 1.500 16 2.	?
Tertiary 40 500 22 - 1.	?
Present Time 0 385 14 - 16	**

Carbon dioxide has been identified as the villain of our so-called catastrophic global warming. Yet, its suggested mankind currently contributes only 3 percent (3%) of the Earth's annual emissions of CO2 into the atmosphere. The 97 percent (97%) balance of emissions is split between vegetation and soils with 53 percent (53%) and the oceans supplying 44 percent (44%).

Australia contributes a tiny 1.5 percent (1.5%) of global emissions. New Zealand would be far less with its Hydro Power.

The Rudd Government plans to reduce emissions by 5 percent (5%) by 2020. It's estimated that this scheme will have an impact of about point .0 0 0 0 4 5 percent (.000045%) OR on the world's greenhouse emissions, or about a 2.2 millionth.

The danger is that farmers, particularly livestock farmers, will be used as 'sacrificial lambs' by governments, to show voters they are doing something for the city-based polluters, who are so insecure they leave their lights on all night and who have made the Yarra River and Sydney Harbour unsafe to swim in.

For the farming community, CO2 is:

- 1. naturally occurring
- 2. invisible
- odourless
- 4. non-toxic
- 5. necessary for all plant life (photosynthesis)
- 6. emitted by all animal life including humans (breathing, etc.)

The reality is that CO2 is Nature's greatest fertilizer, necessary for the growth of pastures and crops, and through photosynthesis, plants turn into oxygen. Co (ATTORY) (A HOTMONIS TOMATOR GROWT OF SOLL)

To quote Australian Better Gardens, Volume 36, May 2009, "Just 59 square metres of turf will produce enough oxygen for a person for the entire day. It will absorb seven times more CO2 than the output from mowing. One acre of turf can absorb nearly a ton of a year."

Yet, pastures and crops are excluded as offsets by the Kyoto Protocol. WHY? ... because farmers are considered expendable!

Australia's farmers are being told to grow trees, with 10 to 20 percent (10 -20%) of the farm a suggested target. In the meantime, farmers are likely to be taxed on livestock and agriculture production for the CO2 or methane generated when feeding and clothing the cities who are the main culprits of pollution and environmental destruction.

Climate has been changing for as long as records have been kept.

In Australia, the current drought was predicted by the Commonwealth Scientific Industrial Research Organisation (CSIRO) in the late 1970's. They predicted a 10 year dry period. We can only hope they also got the 10 year bit right, as it certainly has been dry in Eastern Australia.

# HOW HAVE AUSTRALIAN FARMERS RESPONSED TO THE SITUATION?

We no longer have a rice crop that once fed 40 million people. The water used to grow the rice also grew two wheat crops.

One direct drilled into the rice field after rice harvest and the second when the rice crop water was drained onto adjacent dry land plus a significant amount of straw for roughage. However, the Australian Rice growers Co-op has been importing and processing rice. Its profits are rising substantially. UP BY HOD TO WITH

Our sheep numbers have dropped from approximately 180 million to about 70 million. This attrition has largely been in the Merino base ... almost 30 million sheep have disappeared in the last 5 years.

Breeding cow numbers in South East Australia are down by an estimate of 25 to 30 percent (25% - 30%)

## WATER

Water is the basis of all good planning, whether for a farm, a house or a town ... good quality water IN, grey water disposal OUT.

Troughed water is IN. A 20 percent (20%) live weight gain has been observed in stock drinking trough water, compared with those drinking from a dirty dam.

With troughs and pumps, many water supplies were found to be underengineered, as cattle on a hot wind, 32 degree day will drink 30 gallons per head per day; that's nearly a-third of a tonne in weight.

You can't cart water in a drought, the weight kills you. The text books suggest that cattle drink 12 to 15 gallons per day ... but this is not correct during a drought.

We have found that by installing a trough system, you don't need to fenceout the dams or rivers. Stock will only go into the dam if the trough system breaks down or to cool their feet on a hot day.

## **SOILS**

The droughts have focused our eyes on soils ... maintaining ground cover and fertility.

A well-fertilized productive pasture will produce about 14 units of dry matter per millimeter of rainfall. By contrast, the paddock next door with low fertility and poor species such as onion grass, bent grass and cape weed will only grow around 4 units of dry matter per millimeter of rain.

Fertilizer applications have also changed in some cases, from one heavy application to a number of smaller regular applications, particularly with strategic crop foliar liquid fertilizer spraying is on the increase.

Biological fertilizers with an emphasis on humus are being used by environmentally aware farmers looking to improve the water holding capacity of the soils.

# The Story of Australian Humates

The brown coal fields of the Gippsland basin in South Eastern Victoria are the only known source of humates in Australia, producing what is possibly the richest of all humates mined in the world today!

These brown coals or lignites were formed when Australia was part of a great land mass called "Gondwanaland" some 20-50 million years ago when dinosaurs roamed the earth. In geological time this period was between the Late Eocene and Middle Miocene ages when, in waterlogged environments, plant and tree debris accumulated. As the layer of debris increased in thickness, the floors of these vast swamps subsided slowly and the plant material was decomposed by the action of micro-organisms.

To varying degrees, and depending upon the climatic conditions plant constituents, including proteins, starches and cellulose (100% organic) were decomposed under aerobic conditions (in the presence of oxygen) by a process called "Humification". This process results in the formation of thick layers of rich peat and humic materials. This is why some people call the brown coals of Victoria the "50 million year old compost." As this material is covered with sediment, the combined effects of time, temperature and pressure convert the peat firstly to brown coal and then to black coals. In the transition from brown coal to black coals humals content decreases, oxygen content decreases and carbon content increases. Generally speaking the older the coal the lower the humate content, black coals have none, and hower.

Talk to us. It pays.

Omnia Specialities Australia Pty Ltd **About Humates** What K-humate does for you. and bacteria Provides readily available source of carpon for soil micro-organisms Good chelating properties which reduce loss of nutrients due to leaching and run--umic acids promote beneficial soll Free-up many soil-bound nutrients. microbial growth by providing active perticularly phosphates, calcium and carbon for the nenergy and biomass requirements. Recent studies have... Lock-up aluminium in acidic soils which shown that applications of water containing 150 ppm of K-humate/8 are harmful to plant growth Good buffering capacity which help symulated significant growth of both the stabilise the soil against strong pH e fundal and harterial oppositation in a Talk to us. It pays.

Regular lighter dressings of lime are on the up, as farmers look to maintain a calcium/phosphorous balance and keep organic matter in the soil.

Ten years ago, the issue was rising water tables and salinity in the Murray Darling Basin. Now, there is a growing awareness that soil acidity is a major issue. Australia my not have enough lime to address this issue.

Soil biology is now an issue of debate. In some cropping areas, it's suggested that soil microbes are extracting moisture from the atmosphere and increasing the amount of moisture available from the soil for crops. The decline in run-off is due to the drought and improved water-holding capacity in catchment soils.

My own observation is the runoff from freehold land in the Murray Darling Basin could have been reduced by 30 percent (30%) by improved farming practices over the last 30 years, changes to water holding capacity to the soils and plantation timber.

The genetic improvement in crops and pastures has been significant, with more grain being produced with less water.

With pastures we are swinging away from are some high-input annual rye grasses, as high-input means high water requirements. These are being replaced by perennial phalaris, fescue and rye grass pastures which respond quickly to any Autumn rains, as early Autumn and winter feed is critical.

## LIVESTOCK GENETICS

With stock, a big swing to early weaning and an emphasis on rumen development is occurring.

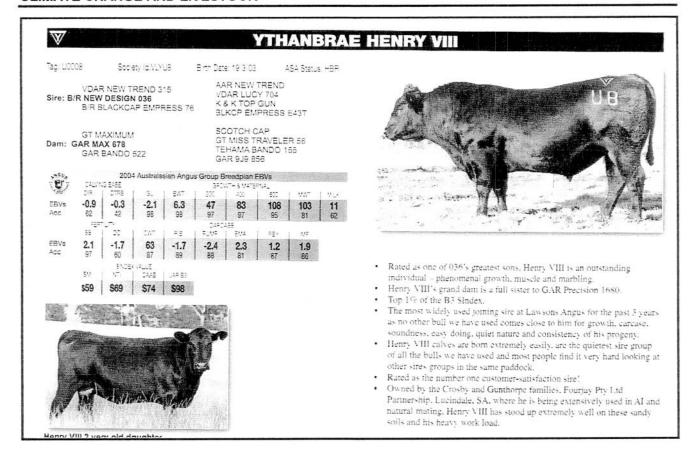
Not only is this allowing better pasture utilization, it creates a massive improvement in food conversion. To put a kilogram of growth on an early weaned calf is about a five-to-one ratio. Going through a cow and then into a calf, is about a 30/35-to-one feed conversion. The dry cows are run on lower quality maintenance feed.

We are looking at about four-to-one food conversion with our Charolais Senepol cross cattle in the 250 kilogram live weight range. Set TO BE CASAL CREDITS

While the early weaned ones on a rumen development program were about 25 percent (25%) more efficient than those weaned later.

In 1970 we used to sell 24 month old bulls at about 1100 pounds, now our bulls can reach that weight at 11 month of age.

Recently, we compared progeny results from our top 1973 sire with those from our 2003 sire. At 500 kilograms live weight, the 1973 steers were 120 kilograms lighter than the modern cattle. One marble score behind with more external fat ... genetic selection works!



A 10 year old bull who is still working in the paddock and whose proof has only improved, today he is in the top 10 indexing bulls.

Most farmers think cross breeding is about growth rates, but it's really about fertility of the female and the will to re-breed and calves will to live that produce the most benefits. This has resulted in a significant lift in calving percent in Australia's northern cattle industry.

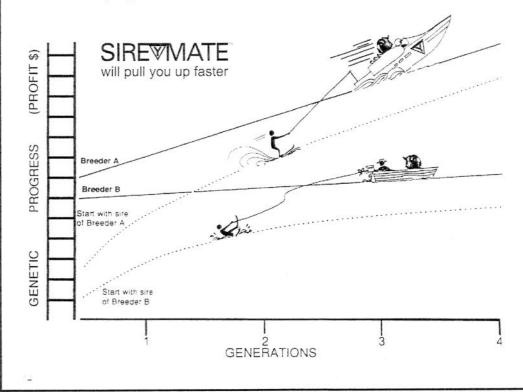
The beef industry in particular has been obsessed with in breeding when it has failed to multiply proven high performance genetics.

# SIREVMATE

Options in practice

Sire Group A New Design Line	Sire Group B Precision Line	Sire Group C Expectation Line	Sire Group D Other Sires
B R New Design 036	GAR Precision 1680	GAR Expectation 4915	RockN D Ambush 1531
Ythancrae Henry VIII	GAP Paramount 8908	Ytnanbrae GAR EXT T4	GAR Grid Maker
Bon View New Design 1407	GAR Pinnacle 7708	GAR Encore	GAR Payload 3674
GAR Prime Design	GAR Everest 9409	Lawsons Beyond	GAR Evas Convergence 3403
Ythanbrae New Design 036 U84	CA Future Direction	Expectation W821	GAR Evas Consistence 3803
Ythanbrae True Blue N33	GAR Yield Grade		GT Sentry
VDAR New Trend 315	Ythanbrae GAR Precision U28		Bon View Spectrum 1176
Bon View New Design 208	"Calculator"		SS Traveler 6807 T510
Perry Power Design 715	Ythanbrae GAR Predision V527		N Bar Prime Time D806
GAR Integrity	Lawsons Buckshot X410		BT Utravox 297E
GAR Casper	Lawsons Tank X1235		BCC Bushwacker 41-93
GAR Authority	Ardrossan Direction X3		Connealy Lead On
GAR Predestined	GAR US Premium Beef		Gardens High Mark
Lawsons GAR Fairdinkum Z19*	GAR Retail Product		Tenama Schwarzenegger N600
Rito 2V1 of 2536 1407	Lawsons High Grade Z440		GAR Solution
			Iranwood New Level
			Ytnanbrae Pono V346
			Lawsons Tank X1235
Daughters from sire group A can be mated to sons of sire groups B. C or D.	Daughters from sire group B can be mated to sons of sire groups A. C or D.	Daughters from sire group C can be mated to sons of sire groups A. B or D.	Daughters from sire group D can be mated to sons of sire groups A B or C.

# Develop your own simple 10 Year Plan.



**CLIMATE CHANGE AND LIVESTOCK** 

Composites and cross breeding have revolutionized the Queensland beef

industry. The role of the Brahman has had a massive impact. With its

adaptability and survivability, it is now used as a base for cross breeding to

address it fertility issues.

Greater emphasis is being placed on stocking rate manipulation to deal

with Southern Australia's current dry spell. A swing to spring calving,

early weaning and trading enterprises are key factors in this area.

**CONCLUSION** 

Water is a major issue in Australia with many farmers receiving zero

allocation, while most farmers have received just 30 percent (30%)

allocation of the past 10 years.

This is also occurring in China, where U.S. intelligence is that China will

need to import enough grain equivalent to the current world trade. By 3030

In closing, can I say that for the high rainfall grassland forage farmers, the

demand for food looks good, with world population growth now exceeding

productivity gains in agriculture.

But it won't be, if city-based governments in mainland Australia and New

Zealand continue to squeeze us to satisfy urban voters.

E-mail:

donald.lawson@bigpond.com

12

# **ACKNOWLEDGEMENTS**

Phillip R. Wood, CEO, Intec Pty. Ltd. Climate Change Talk

Peter Nixon, Orbost, Letter to Editor, Weekly Times (June, 2009)



# CROSS

ROCESS

0.5111.00

