

**"Carbon Sense"** – common sense on carbon, food, energy and climate.  
[www.carbon-sense.com](http://www.carbon-sense.com)

## ***Feast or Famine?***

*Food depends on farmers, fertilisers, tractors, carbon dioxide & carbon fuels  
and Famine always follows global cooling, drought, & silly politicians.*

**Viv Forbes**

"Carbon Sense": 8 October 2012.

Keywords: Sustainable farming, food, famine, horses, tractors, fertilisers, population, biofuels, global cooling, water, drought, sun spots, UN, Agenda 21.

A print-ready copy of this issue of "Carbon Sense" can be downloaded from:  
<http://carbon-sense.com/wp-content/uploads/2012/10/feast-or-famine.pdf>

The article on "Sustainable Farming" created a lot of interest and feedback. Most feedback was complimentary, but some was critical and some was very enlightening. The original article can be found here: <http://carbon-sense.com/wp-content/uploads/2012/09/sustainable-farming.pdf>

This further article explores some of the farming and food issues raised by readers.

### ***Farming Philosophies.***

Firstly to the critical comments – some people were left with the impression that we were against things like organic farming and in favour of chemical farming, mono-crop cultivation, overuse of chemical fertilisers and genetic modifications. We had expressed no opinion on these matters – our main point was that truly sustainable farming, able to exist long term without external inputs, is an impossible dream unless we return to self-sufficient peasant farming of the past where no nutrients or soil minerals left the farm. Farmers would survive this method of agriculture, and perhaps be happier, but the cities would starve.

On our own farm our goal is to encourage pasture and animals that can thrive in our environment with minimal artificial aids. We use almost zero pesticides, herbicides, vermicides, anti-biotics, hormone growth promotants, vaccines or genetically modified plants. During our occupation of this land we have cured many erosion gullies, encouraged useful trees and tried to control woody weeds without burning. We try to eat pasture-fed meat and eggs, raw fresh goat's milk, home grown vegetables and non-fluoridated, non-chlorinated tank water. Our grazing management tries to mimic the grazing habits of the natural herds of ruminants that roamed the great grasslands of Africa and the Americas – so we use cell grazing, multi-species grazing and encourage a great variety of grasses, herbs and "weeds". But unlike the strict organic farmers, we are willing to use whatever soil supplements are needed to correct and maintain soil fertility. We prefer crushed rock fertilisers but will use traditional fertilisers if the soils and pastures need them. We are not hostile to the use of machinery and use rippers and scarifiers to rejuvenate old or weed-infested pastures.

We do not believe our methods are the only ones – no one knows the perfect way to farm, especially the interfering bureaucrats who sit in city offices drafting their land-use plans. We do not try to use the law to force our ideas on others, but we are increasingly hampered by misguided land-use laws. And we totally distrust green extremists who would sacrifice our grasslands to their sacred carbon-credit trees and who use empty slogans like “sustainable farming” as the stalking horse to impose their grand UN Agenda 21 plans for rural dictatorship, sterilisation and dispossession.

For those interested, this article may explain more on our farming philosophies:

<http://www.damaras.com/newsletters/200504.html>

## ***Horses, Tractors and Food***

### ***- the replacement of bio-fuelled horses with carbon-fuelled tractors***

A few people recalled their stories of farming with draft horses.

The real farm revolution was triggered by Henry Ford who pioneered the production of cheap small tractors for family farms, and the model T for road transport. The kerosene powered Fordson tractor and those that followed suddenly removed thousands of horses from farms. And the cars took all the horses off the roads. The land that previously fed horses now produced food for humans.

Here are some comments:

***Viv,***

***An old friend of mine, Dave Heinrichs, the notable breeder of Rambler lucerne from Swift Current in Saskatchewan, was brought up on a quarter section, 160 acres, which was all a six-horse team of Percheron draft horses could handle. He told me that in the great drought of the 30's they could not grow enough feed for the horses to work the farm.***

***There used to be a Jolliffe cartoon showing the miserable oat crop, the skeletal horse, the down-at-heel farmer, and the visitor:***

***Visitor "Why do you keep the horse".***

***Farmer "To grow the oats".***

***Visitor "Why do you grow the oats".***

***Farmer "To feed the horse".***

***Pat Palmer***

Horses were not used just for pulling ploughs, planters, mowers, rakes, harrows, harvesters, wagons, drays and sulkies on the farms – horses were everywhere. For example:

*Viv,*

*I am reading "The Second World War" by Antony Beevor. On p197 he says that 600,000 horses assembled from all over Europe were used to transport the rations and ammunition and even ambulances for the German army when they invaded Russia in 1941. Imagine how much food the horses ate!*

*But 600,000 horses weren't enough and the Germans had to kill most of the Russians they captured because they couldn't feed them. They were flat out feeding themselves and eventually they starved. Both sides suffered from food shortages, and in due course the Russians returned the German favour. Their main advantage was that there were more of them and their supply line was shorter.*

*Bob Greenelsh*

Horses were used for all forms of transport - the Pony Express, Cobb and Co coaches, The Surrey with the Fringe on Top, The Light Horse, the drovers, the baker's cart and the kid's ponies (we had a horse paddock at Wheatvale School where all the kid's ponies were kept while the kids were in school.) At its peak in the late 1800's, Australia's Cobb and Co coaches used 30,000 horses and 6,000 were harnessed every day. There was a huge industry devoted to growing, harvesting, storing and transporting feed for horses.

And the exhaust products of horse power were EVERYWHERE. In 1894, the London Times estimated that by 1950, every street in the city of London would be buried nine feet deep in horse manure. (That sounds more alarming than predictions of global warming of a couple of degrees over the next century.)

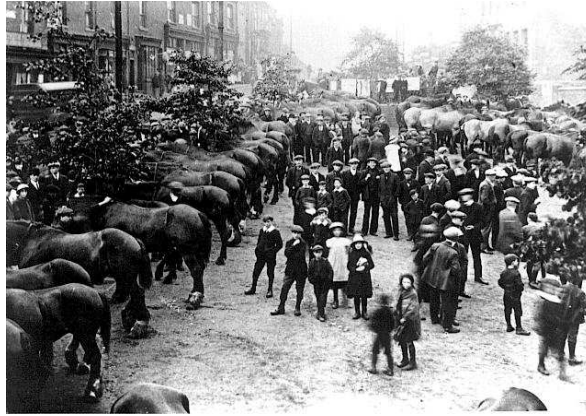
See: <http://www.thefreemanonline.org/columns/our-economic-past-the-great-horse-manure-crisis-of-1894/>

But Henry Ford made chaff of the horse manure forecast. The current climate alarmists will end up looking equally foolish.



Laying the Tram Tracks near the end of the Horse-power Era

Source: <http://poolehighstreet.wordpress.com/page/2/>



### **Idling Horse-power in the Midlands - maybe the bus terminus?**

Source: <http://www.edu.dudley.gov.uk/teachandlearnresources/dudleycd/nethertn/warhorse.jpg>

All of these horses had to be fed – by the farms. As tractors, trucks, cars and motorcycles replaced horses, all of that farm produce previously eaten by horses was freed to feed cattle, sheep, pigs, goats and humans. There was a vast increase in food available to humans.

It is hard to comprehend the amount of food released. “Eats like a horse”, is not an idle comment. Unlike ruminants such as cattle and sheep, horses are very inefficient processors of their food and much goodness ends up in their voluminous manure, undigested. They eat for much of the time they are awake. Once they went from the farms, the hay, pasture and grain they had eaten was available for more cows that used it more efficiently to produce more calves and more butter, cheese and milk. The extra whey and grain then fed more pigs for bacon and pork.

I never thought of it at the time, but imagine the huge numbers of draft horses that must have gone to knackeries as the tractors rolled out of the Twin Cities and Henry Ford's factories. Much of the horse meat probably ended up as human food!! It happened over a few short years. At the end of the war (1945), 40,000 un-needed Canadian draft horses were shipped to Eastern Europe to repopulate farms there. (If they were really trying to relieve starvation in Europe, they would have sent tractors!).

As tractors became more powerful, cultivation, planting and harvesting could be done much more quickly. And unlike horses which cannot work forever without rest, tractors can keep going 24/7 as long as someone checks the oil and water, keeps adding fuel to the tank, and keeps the driver awake. They put lights on the tractors, and a relief driver, and kept working. Speed is particularly important for grain farming and hay making, which must juggle soil moisture and weather to get all the jobs done quickly at the ideal time. Planting that takes two days may mean the second day is stopped by rain and that ground is not planted for weeks, and by then it may be too late in the season. Or a slow harvester may lose the rest of the crop to sudden storms or floods. Rain before all the hay is baled can suddenly convert that hay from valuable prime lucerne to garden mulch.

Additional reading: [http://www.livinghistoryfarm.org/farminginthe50s/machines\\_plowing.html](http://www.livinghistoryfarm.org/farminginthe50s/machines_plowing.html)

Tractors and machinery did reduce employment on farms (which also freed up more food from the farms). However the workers left happily of their own accord because they got very little cash payment on farms but the factories did pay cash, and the farm machines allowed a great increase in food production and reduced food prices. In my childhood, our labourers (including the family) got little more than a bed and food, and a bit of pocket money when we went to town or to the rodeo. Once tractors came, we could not get labourers who would work for bed and food. We could never afford farm labour again. Cash in the pocket, an 8-hour day and bright lights were more attractive than rising in the frost to milk cows in return for a bed in the unlined, unheated hut plus “breakfast, dinner and tea” - a breakfast of rolled oats, bacon and eggs; a dinner of corned beef, boiled cabbage and pumpkin; and a tea of roast beef, potatoes and beans followed by bread and butter pudding.

Only farm owners and their families were stupid enough to stay on the farms once better options beckoned.

## Fertilisers and Food

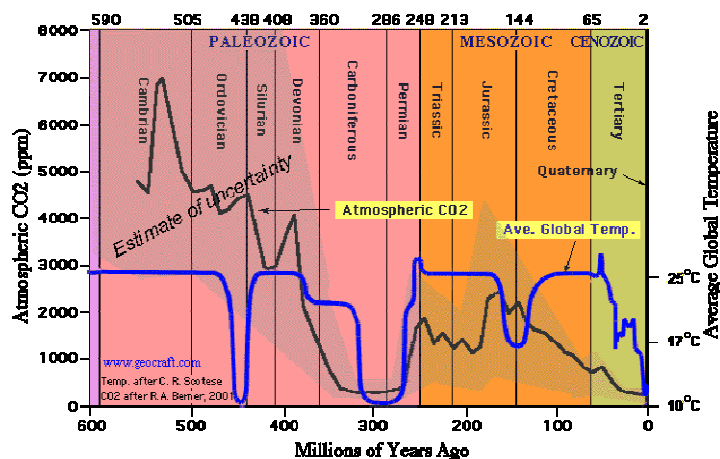
Plants need a balance of many mineral ingredients to remain healthy and productive. All are supplied either from the air, or from the breakdown of the underlying rocks, or brought by flood waters, and some are created in organic nutrients in the soil by soil bugs and critters. And if the correct balance of primary elements is not present in the soil, farmers must supply them. No amount of “sustainable farming” will create minerals such as calcium or phosphorus that are not there.

By far the most important and least recognised plant nutrient is the invisible aerial plant food – none other than the demonised carbon dioxide gas. All plants (and animals) are composed of carbon compounds. Plants use solar energy and the magic of photo-synthesis to extract carbon dioxide from the atmosphere. They then add it to that other nutrient of life, water, to produce sugars and carbohydrates. No plants can live without carbon dioxide and without plants, no animals would survive. It is a sad testament to the decline in science education and the growth of green dogma that this critical gas of life is now widely slandered as a “pollutant”.

Even many farmers appear ignorant of their dependence on this magic gas. Nurserymen however are well aware of the importance of carbon dioxide and try to correct the current natural deficiency by pumping it into nurseries and greenhouses. Farmers should welcome any nearby power stations that burn coal or gas – they will help feed their crops with the carbon dioxide produced for free. Maybe farmers should pipe it onto their fields like irrigation water? Only a fool would insist on burying this valuable gift of nature.

The level of carbon dioxide in the atmosphere has been fluctuating for millions of years. Carbon dioxide and methane were probably present in large quantities in Earth’s original atmosphere. Since then, volcanoes have added to the primary stock of carbon gases, while oceans have squirreled it away in vast beds of limestone, dolomite, magnesite and siderite, and swamps and lakes have laid down carbon in thick and widespread beds of coal and carbonaceous shales. However the overall aerial trend is down - the natural burial processes appear to be winning this battle for the precious carbon dioxide in our atmosphere.

The current level of carbon dioxide in the atmosphere is far below the average of past eras:



The Early Permian Era (about 300M years ago) is the only time period in the last 600 million years when both atmospheric CO2 and temperatures were as low as they are today (Quaternary Period).

Source of graph: [http://www.geocraft.com/WVFossils/Carboniferous\\_climate.html](http://www.geocraft.com/WVFossils/Carboniferous_climate.html)

In recent times (the last 150 years or so) there has been a slight increase in the level of carbon dioxide in the atmosphere. This is probably driven by the slight warming of the oceans since the end of the little Ice Age. In very recent times (since about 1950), man's activities have recovered a tiny fraction of the valuable buried carbon locked in coal and the carbonate rocks.

Most life on earth today evolved when carbon dioxide levels were higher than today, and plants today are suffering mild carbon dioxide deficiency. The gentle increase in carbon dioxide seen as Earth recovered from the Little Ice Age has been a significant factor in the modern "green revolution" and the growing population it has allowed.

To make proteins, plants need that other natural atmospheric gas of life – nitrogen. Legumes such as lucerne and clover can extract nitrogen into nodules on their roots. Other plants get nitrogen from nitrates created in the atmosphere by lightening. Man has added a bit to the air from industry, but regular cultivation created a big deficiency of nitrogen in many farm soils.

Two other minerals are absolutely essential for plant growth – potassium and phosphorus. Potassium occurs in sea water and deposits of potassium have been laid down in brines by the oceans. Continual farming, with no replenishment, can render soils very deficient in this essential nutrient. Mining again came to the rescue with the mining of potash-rich salt deposits.

These then are the big five essential nutrients for plants – carbon dioxide, water, nitrogen, phosphorus and potassium. Plants will not grow without an adequate supply of these, from the atmosphere or the soil or from external sources.

However, after a century of cultivation without replacing minerals, Australian soils had become severely deficient in nitrogen, phosphorus and potassium (NPK). They became the limiting deficiencies. All three deficiencies were relieved in the twentieth century.

The war had an unexpected bonus for food production – the same nitrates that formed explosives, could be applied to soils to boost nitrogen for plants. This led to a massive increase in nitrogen availability for farmers post-1945. Today most nitrogen fertiliser is made from natural gas.

Guano (rock phosphate) was first mined in Western Australia in 1850 and super-phosphate use started in Australia in the early 1900's. Superphosphate fertiliser was remarkably effective for the first 20-30 years.

We got several comments on the magic results achieved when super-phosphate was first applied on Australian farms. Here is one:

*Viv,*

*My grandfather owned a wheat and sheep property in Northern Victoria. My mother was born in 1904, when the Federation drought was still making life very difficult for farmers like him. He would get up at 4 am to feed the horses and get them into harness for the day's work which began at sunrise. Oats were grown for the horses and wheat for the markets – I think 40% of farm output was required to feed the horses.*

*After decades of wheat farming the land and soil were quite degraded; then in the nick of time, super-phosphate was developed. Yields of grain produced tripled with the first applications of super, as phosphorus was the limiting deficiency. I think I'm right in saying that super-phosphate fertilizer saved my grandfather (and many other farmers) from bankruptcy.*

*Ray Evans*

But it is human nature that anything worth using will eventually be overused. Super and nitrate became overused and this overuse helped create other deficiencies – calcium, magnesium, zinc, copper, cobalt, moly, sulphur, boron, selenium etc became the limiting deficiencies, soils became more acid and earth worms disappeared. Many soils now need massive applications of lime (calcium), gypsum (calcium and sulphur) or dolomite/magnesite (magnesium). Some harsh farming methods (trash burning, excessive cultivation and no legumes) also caused a progressive loss of soil humus (carbon) and nitrogen. This heralded the era of no-till farming and its bad companion – herbicide over-use. So farmers are still experimenting and improving their soil and water management. Undoubtedly they have made mistakes but crop aids such as super-phosphate, rock phosphate and the nitrogen/ammonium fertilisers have allowed farm yields to continue increasing.

The minerals such as phosphorus, calcium, magnesium and all the trace minerals shipped out every year in meat, bones, wool, milk, butter, fruit, vegetables and grains must be replaced as they are used or farm productivity will decline. For example, every tonne of dry lucerne hay sold will remove these mineral nutrients from the farm:

- 35 kg nitrogen
- 17 kg potassium
- 13 kg calcium
- 3 kg magnesium
- As well as other trace elements

Cities are the great sink holes for farm nutrients. We need to look at where the soil minerals which leave the farm end up: in the sewers and cemeteries of the major cities where the bulk of the produce is eaten, digested, excreted and buried. Good soil husbandry can create soil life with increasing humus that recovers carbon and nitrogen from the atmosphere. But minerals such as calcium, phosphorus, magnesium, zinc, copper, cobalt, boron, selenium, iron, molybdenum and sulphur cannot be restored by mulching, legume rotation, organic farming, humus creation, sustainable farming, carbon farming or no-till etc – they must come back in minerals applied. These are often the products of mining operations.

Mines and farms are in a symbiotic partnership – farms feed the miners, and mined products maintain the mineral nutrients in farm soils. Cities cannot survive for long without either of them.

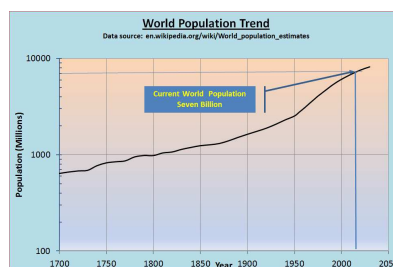
Progressive farmers understand the full carbon cycle and are moving towards holistic management of soils, fertilisers, pastures and animals to produce more sustainable farms. City dwellers should support these efforts as their future depends on their success.

***“Only a foolish horse fights with his nose bag”.***

Additional Reading: [http://www.livinghistoryfarm.org/farminginthe40s/crops\\_04.html](http://www.livinghistoryfarm.org/farminginthe40s/crops_04.html)

## ***Modern Farming and Population Growth***

Despite the forecasts of peak population by Malthus and many others, the world has continued to supply food to increasing numbers of humans as seen below:



Six main factors have allowed this increase in population to happen:

1. The steady increase in carbon dioxide in the atmosphere since the depths of the Little Ice Age, probably caused by a slight warming of the oceans, and maybe slightly assisted since about 1950 by man-made emissions.

This has encouraged plant growth and drought and temperature resilience in plants. This free bounty of aerial plant food has been a significant factor in the green revolution.

2. The ability to store, pump and apply water to plants and crops.

Stored water can eliminate the black dog of farming – KING DROUGHT.

3. The replacement of horse power, mule power, donkey power and bullock power by carbon power for tractors, trucks, trains, bikes, planes, helicopters and cars.

Tractors allowed farmers everywhere to get rid of their many draft animals that eat whether they work or not. Tractors do not eat farm produce and only need to be fed when they are actually working. Much of this changeover occurred post World War II and played a significant part in the increase in food production and human population seen since 1950.

4. The widespread use of fertilisers, particularly super-phosphate (from mined rock phosphate), nitrogen fertilisers (made from natural gas), potash (mined from salt brines), and the carbonate and trace mineral rocks such as limestone, dolomite, gypsum, sea salt, basalt and decomposed granite. (Oxidised coal or lignite would be a marvellous soil conditioner, but is not yet widely used.)

Because soils had become very deficient after generations of farmers had mined and sold off their soil minerals, the initial applications of fertilisers had a dramatic effect on crop growth and food production. However, without soil analyses and good knowledge of the need for balance of minerals and soil nutrients, NPK fertilisers were often overused, causing soil imbalance, declining fertility and loss of excess nutrient in run-off. Farmers are now well aware of this problem and have big incentives to correct it (lowered fertiliser costs, better soil health and better crops).

5. Improved varieties of crop plants and better management of soils, pests and crops.
6. Western policies on foreign aid and welfare have largely abolished famine but have also encouraged the growth of population beyond the ability of the land or infrastructure to sustain it.

Undoubtedly there has been a cost to the environment as many good things such as fertilisers, pesticides, weedicides and cultivation were overused. But farmers always have the incentive to find ways to do things better and cheaper.

Farmers have been very successful at feeding a huge and growing world population. However, nature poses a huge risk to Earth's massive population – should the possible cooling episode occur in the decades ahead, the current world population may not be sustainable. And if we listen to silly green policies on bio-fuels or “sustainable farming”, that crisis point will come much quicker.

*Additional Reading:* [http://www.livinghistoryfarm.org/farminginthe40s/money\\_01.html](http://www.livinghistoryfarm.org/farminginthe40s/money_01.html)



## ***The UN, Agenda 21 and Sustainability.***

According to the UN, the objective of sustainable development is to integrate economic, social and environmental policies in order to achieve reduced consumption, social equity, and the preservation and restoration of biodiversity. They insist that every societal decision be based on environmental impact, focusing on three components; global land use, global education, and global population control and reduction.

“What is not sustainable? Ski runs, grazing of livestock, ploughing of soil, building fences, industry, single family homes, paved and tarred roads, logging activities, dams and reservoirs, power line construction, and economic systems that fail to set proper value on the environment.”

*UN's Biodiversity Assessment Report.*

## ***The Threat of Biofuels – returning to the fuel of the Horse and Buggy Days***

Perhaps the biggest risk to food production and the sustainability of the world's population is man-made – the unbelievable green goal to turn back the clock and force people to run cars, trucks, planes and even armies on bio-fuel, not on oil or gas. This is one of the two silliest policies advocated by climate alarmists and green extremists (the other is carbon capture and burial).

If this destructive biofuel scheme succeeds, even partially, farmland will return to the days of horse-power when large areas of farmland were devoted to growing fuel for traction and transport. This would take farm food production back to the horse and buggy days where 40% or more of farm production was consumed by horses.

At last, however, Europe is waking up to the threat posed by “Food or Fuel”. Soon only the Lucky Country will be able to continue such foolishness.

Additional reading:

<http://www.cfact.org/a/2117/The-folly-of-E15-antihydrocarbon-policies>

<http://www.europeanenergyreview.eu/site/pagina.php?id=3878>

## ***Is Global Warming a Threat to the World's Farms?***

Very few farmers celebrate the arrival of winter - for most of the world's farmers, it is the season most feared. For example, here is a picture sent by a sheep breeder friend in British Columbia:



**Coping with Winter in Canada – Biofuel for Sheep.**

As long as it is warm enough, all a farmer needs is water and he can grow something even in the most unpromising soil. And good soil can be created almost anywhere with good farming techniques (which may include a good diesel-powered ripper, appropriate mineral supplements, balanced pastures and grazing animal impact.) But plants will not grow under ice or snow.

In the tropics there are rainforests, coconut groves, rice paddies, tropical fruits and farms of all sorts. But in frigid zones, almost nothing grows, even though there is often abundant water – even the caribou migrate south in winter to follow the sun and the fodder.

Even here in subtropical Queensland, the period from the first frosts of autumn to the first storms of spring is a depressing time of disappearing pasture and water, frosted grass, gaunt cattle, sheep that bleat every time the hayshed door is opened, and smoke from the many bushfires that dot the horizon.



Laying in Biofuel for Winter at Rosevale, Queensland, Australia

***My father ran this property as a dairy farm.***

***Every summer, the grass grew and the cows made money for us.***

***Every winter the grass died, we fed hay to the cows, and gave all the summer money back to them.***

***Laurie Schneider***

Except in balmy Mediterranean climes or the tropics, winter is usually a time of hungry animals, killing frosts, icy rain and cold polar winds. And cold air is usually dry air. No wonder many farmers celebrate the coming of spring. And why would they fear a bit more warmth?

What farmers need to fear is GLOBAL COOLING. In such an event we will welcome a bit more plant-friendly carbon dioxide in the atmosphere.

History gives us valuable lessons on the effect of global temperature on food production and prosperity. For example, the Mediaeval Warm Period was a global phenomenon. It was during this period that Europeans enjoyed agricultural prosperity with an abundance of food and population growth. They made huge progress in technology, inventing, for example, mechanical clocks and windmills, building the great cathedrals, and establishing cities such as Venice, Florence, Milan, Genoa, Amsterdam, and eventually London, which became great banking and trading cities which laid the foundations of Western growth and development.

Then followed the Little Ice age with a sharp reduction in food production, abandonment of towns and farms, and soaring grain prices. Iceland, Scotland and Scandinavia were hard hit by encroaching snow and ice and the Baltic Sea froze. Glaciers advanced, populations fell, and Napoleon's Grand Army (and its 50,000 horses) starved in bad weather in the retreat from Moscow.

Neither Napoleon (with 50,000 horses) nor Hitler (with 600,000 horses) understood pasture management. And they underestimated the Russian winter. They both assumed they would feed their horses (and their soldiers) from what they could steal from Russian farmers along the narrow roads.

So the first regiment and their horses were well fed; the second regiment was poorly fed; but the third regiment did it hard because nearby crops had been eaten or trampled, haysheds were empty and cellars and granaries had been looted. The tail of the army starved. Then they had to retreat back along the same tracks of misery, in cold weather, with angry Russians shadowing them like wolves harassing a herd of crippled caribou in deep snow.

By then, most of the vast horse herds had been eaten or had died of starvation. Then the Army starved.

### ***Why Worry about Warming – for Farmers, Water is the Worry.***

What do farmers watch every day?

They watch the skies for signs of change-clouds that may signify rain coming; they watch the Pacific Oscillation Index nightly for clues as to a possible return to dreadful El Nino droughts; they remember famous forecasters such as Inigo Jones who pioneered the use of sun spots to forecast the ebb and flow of floods and droughts; they follow the cycles of the moon for clues as to possible weather changes; they watch Jennie Woodward of ABC weather every night to see where the latest high level trough is situated; but I have not met a single one of them who listens to Climate Commissioner Flannery's monthly messages of doom, or consults the latest failed IPCC computer forecast of temperature changes that may be detected in a century or so.

There are cycles of wet and dry years, and they have nothing to do with carbon dioxide. Since the days of the Pharaohs these cycles have been recorded. And like the cycles of warming and cooling, the cycles of wet and dry years also correlate with sun-spot cycles. Will Alexander has done much research in this area: <http://carbon-sense.com/2008/05/26/alexander-2008/>

Floods are inconvenient, they wash fences away, and can be devastating, but they do bring new life to the rivers and creeks. More importantly, flood plains were built by floods, and regular floods which spread their veneer of rich alluvial soil will restore their fertility. Sensible people expect that flood plains will be flooded every now and then, and plan accordingly. Drought is the deadly enemy that is hardest to cope with.

***"I am the Master, the dread King Drought,  
And the great West Land is mine!"***

From "Drought" by William Ogilvie: <http://www.poemhunter.com/poem/drought/>

Farmers can cope with any temperature except extreme cold providing there is enough water, either from rain or snow, or from underground or surface water storages. It is thus of great concern that the current sunspot cycle seems to be hinting at a return to colder global climates.

Future food supplies are threatened in two main ways. The first and biggest threat comes from stupid climate alarm policies such as using farmland for biofuels, or taxing the carbon energy which provides the horse-power for modern farms. The next threat is the weather – long periods of very cold or very dry weather.

Foolish politicians, plus global cooling, can quickly convert the feast into a famine.

Authorised by:  
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*We seem to be getting on top of our computer collapse. We still have a lot of spam checkers stopping our emails. Pls make sure we are an "allowed sender", or check your "Junk Mail" folder. And let us know when you change your email address.*

*"Carbon Sense" is a newsletter produced by the Carbon Sense Coalition, an Australian based organisation which opposes waste of resources, opposes pollution, and promotes the rational and sustainable use of carbon energy and carbon food.*

*Please spread "Carbon Sense" around.*

*For more information visit our web site at [www.carbon-sense.com](http://www.carbon-sense.com)*

*Literary, financial or other contributions to help our cause are welcomed.*

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