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SUBMISSION TO THE HOUSE OF REPRESENTATIVES
STANDING COMMITTEE ON REGIONAL AUSTRALIA

FINAL TEXT

THE MURRAY DARLING
BASIN – A COMMENTARY

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Introduction

This commentary is driven by the concerns of farmers, and dates from a bygone age when a little boy (“to be seen but not heard!”) began to gain wisdom from family members with farms in Newlyn, Nathalia, McCoy’s Bridge, Swan Hill, Merbein, Werrimull, Mildura, and Tamworth, and from friends and acquaintances in Koraleigh, Tooleybuc, Yea and Yarrawonga, . Born and bred in Melbourne, the little boy grew to gain skill in appraising systems and management during a career with the Inspector-General’s Division of the Department of Defence. At the same time, an awareness of agricultural matters and rural water issues grew steadily. In later years, ownership of a small irrigated property provided an intensive learning experience.

Whilst this paper addresses some of the broad issues of water management and use, particular attention is invited to

- the ‘filed and forgotten’ option of building a dam across the Goulburn River at Seymour, Victoria, page 8,
- a proposal for periodic closure to fishing of sections of the rivers so as to encourage environmental equilibrium and regeneration of fish stocks, page 10, and
- the author’s scheme for removing chemical contaminants from any drainage water which presently returns to the river network from irrigated land, page 9.

A Brief Historical Perspective

In the late 1940's, irrigation farming began a period of steady development to provide food for Australia's growing post-war population. Orchardists, vineyard operators, market gardeners and pastoralists in four States had good prospects of supplying domestic and export markets. The garden looked rosy.

Then came the novelties of rice farming and cotton growing. National supermarkets began to encourage *en masse* production of vegetables on broad-acre farmland never previously irrigated. The drought that began in the 1990s sealed the fate of the great river network. Largely unbridled trading of water rates began as farmers battled to survive. Water rights that had been unused for many years on salt-affected land became a saleable commodity. The vital parity between input from rainfall and output for agricultural and environmental needs became progressively more dependent on a fragile mathematical constant, to wit not less than average rainfall every year. Parity was doomed - Mother Nature does not deliver mathematical constants.

The Task at Hand

Given the vast extent of the Murray-Darling network, and the complexities of various State laws, any notion that the network's present ailments and inbred disorganization might be remedied in two short years is at best ambitious.

The Standing Committee on Regional Australia might wish to inform the Parliament at an early date regarding:

- the vast geography of the river network
- State Government Departments being intermediary between the Murray Darling Basin Authority and corporations that distribute water;
- demands placed on the network by farming, rural cities and towns, industry, environmental needs, and tourism, and
- the nature and complexity of water related issues thus far presented to the Committee

All concerned would do well to bear in mind that "fools rush in where angels fear to tread".

The issues presented in the following paragraphs are representative of matters that need to be addressed. Without doubt, other issues will require consideration.

The Management Myth

The notion that there is a Murray-Darling System is fraught with hazard. By way of contrast there are computer systems, telephone systems and transport systems. Each of these systems is discrete; each can be controlled and managed.

The Murray-Barwon-Darling-Murrumbidgee-Wakool-Edward-Lachlan-Ovens-Broken- Goulburn-Avoca and Loddon Rivers and their many tributaries form a national resource perhaps better considered as a network.

The network is divided. The network's resources are drawn on in the Australian Capital Territory as well as under the auspices of four State Governments, each keen on State development, each having minimal regard for the needs of other States, and each open to lobbying by self-interest groups,

Independent State development of infrastructure has sometimes been clearly intended to benefit communities further down the river network, as with Lake Eildon on Victoria's Goulburn River, the Dartmouth Dam, and the Hume Reservoir. At other times, the driving force behind new infrastructure might well have been local development, as with the Menindee Lakes scheme on the Darling River in NSW.

Enormous enterprises such as Cubbie Station in Queensland have impacted on environmental flows in south-east Queensland, where many tributary streams join the Barwon and flow west to become the Darling River in NSW. Less grand initiatives such as the 1990s development of a 1000 acre vineyard development on the Murrumbidgee River at Balranald in NSW, have impacted similarly, and have taken water which was never really available. Such enterprises underscore a mindset that sees water in any river as an available resource, regardless of the needs of existing users, and inconsiderate of environmental flows. That mindset has been in need of restraint for many years. There can be no restraint without effective direct management.

The Murray-Darling River network is emphatically not a system, and will never be managed well until wise and truly effective executive management rests with the Federal Government.

Effective management needs to be nourished by independent auditors. Australian Government administrators have long been beset by the tyranny of distance;. The puppet strings between the Murray Darling Basin Authority and the riverine stage are indeed long and vulnerable. Independent auditors, accessible to 'whistleblowers', could identify mischief on the stage, function as educators, and help to keep the puppet strings free of knots and tangles.

Wise executive management would seek out the knowledge of men who have years of hands-on experience concerning the rivers and irrigation. The knowledge has been there for decades. Did overly-confident academics and Commissioners busy with grandiose reports ever bother to ask?

The present geographically diversified management arrangement and a structured system for effective management are compared on the next following page.

Existing Geographically Diversified Management Arrangement

- Murray Darling Basin Authority – more noted for glossy publications and 'quick-fix' plans than for efficient, effective administration.
- Many see the Authority as a tool of political intrigue..

State Government management bodies:

- Queensland water authority
- NSW water authority
- Victorian water authority
- SA water authority

Subsidiary Administrative Entities

For example, Victoria's water authority is the Department of Sustainability and Environment which functions as an intermediary between the Murray Darling Basin Authority and subsidiaries such as Coliban Water Inc., Goulburn-Murray Water Inc., and Central Highlands Water

In NSW, the water authority is supposed to oversee even the comparatively tiny Goodnight Irrigation Trust. (Not as it were ♪♪♪♪ "on the far Barcoo where they eat Nardoo" ♪♪♪♪, but certainly "a thousand miles from home"

Water Bailiffs



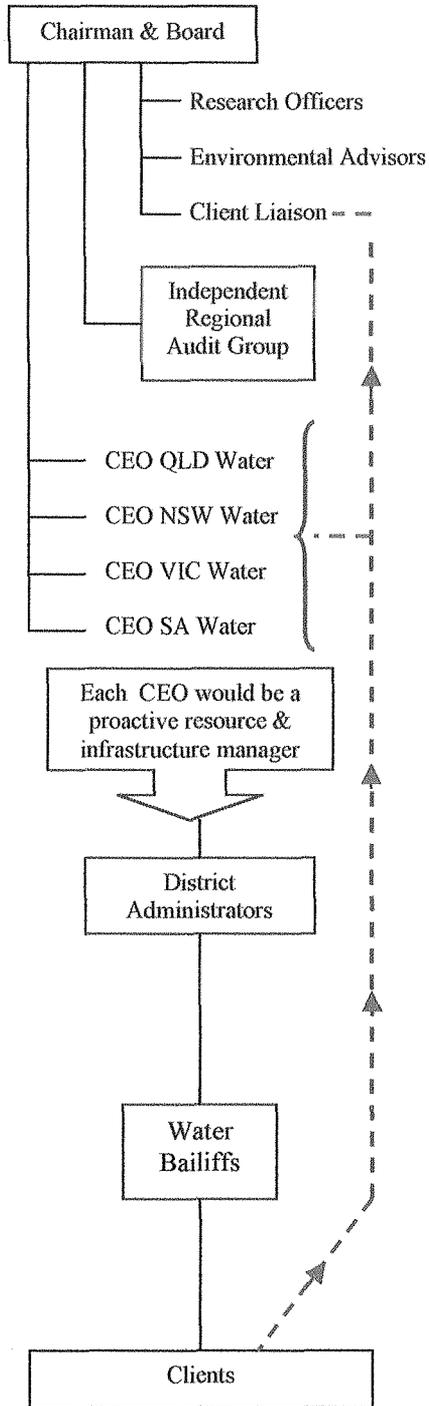
Clients

Clients generally communicate only with a local Water Bailiff

Structured System for Effective Management

Minister for Water

- Federal Water Resources Authority



Independent State management authorities are re-structured under direct control of the Chairman & Board

Client feedback ----- to the Federal Water Resources Authority and to the respective State CEO is proactively encouraged

Achievable Output from the River Network

Before 1960, the demands of agriculture, tourism and the environment were well met despite the droughts and floods that attend the Australian continent. There was always visible flow in the River Murray. The perception of an ample, endless water supply prevailed.

The supply has since fallen for three prominent reasons:-

Development of Rice Farming

Rice needs to be inundated during the first stage of plant development. Inundation is sometimes achieved by allowing the water to trickle into the rice paddy from an adjacent source, be it creek or channel, and to return to the source downstream from the entry point.

There is a widespread belief that rice crops do not consume water because whatever is drawn from the source returns to the source. The perception is false. Rice paddies are vast evaporation ponds where water flows slowly enough to attract countless hordes of breeding mosquitoes.

Is there a solution?

Rice farming in the Murray-Darling network could be limited to the satisfaction of Australia's domestic needs.

In the longer term, export markets might be served by rice farming in Western Australia's Ord River basin, or if need be to a more southerly WA climate zone served by pipeline from the Ord River Dam. See also page 8 : More Water? Yes Indeed!

Development of Cotton Plantations

Cotton does not lend itself to the water-wise irrigation methods now available for fruit orchards, orange groves and vineyards. Cotton plants are not 'drip-irrigated', and a good deal of the water used is absorbed into the soil between plants, rather than by the plants themselves.

Is there a solution?

As with rice, initiatives could be explored to transfer cotton growing enterprises to the Ord River basin area

Unbridled Trading of Water Rights

Water rights or licences became a very marketable commodity during the recent prolonged drought. On appearances, no Government took much interest in managing the trade, save action to retain water use within defined State areas.

The outcomes of lack of management have seen demands placed upon the river network that were not present at the onset of the drought. In the Kerang-Lake Boga area of Victoria, for example, there are hectares upon hectares of once irrigable wasteland, much of it developed under Soldier Settlement Schemes. The land became

more or less barren when water tables rose causing high salt concentrations in the soil. Water rights, unused for many years, were sold. Thus, long unused and virtually 'non-existent' water was suddenly able to be called upon by the licence buyers.

Lack of adequate management of water right trading has also seen irrigated, productive land become wholly dependent upon rainfall and more or less unproductive. We now have a situation where on the one hand the sale of water rights has caused productive land to become unproductive. On the other, there is land where the purchased water rights present an accumulation of entitlements far beyond any reasonable need.

Is there a solution?

Immediate action to ban trading in water rights seems desirable.

In the longer term, farm-by-farm appraisal of the actual need for water, given water-wise irrigation practice and having regard to the nature of production, seems desirable. Is pasture best watered by immersion or by overhead spray? The answer might not be the same in all climate zones. Should drip-feed irrigation become mandatory in fruit orchards, orange groves and vineyards? Almost certainly, yes. Cost subsidies might be necessary, and there might be cases where drip-feed irrigation is not practicable for long established trees.

There is a pressing need for assessment of the impact of restoring water rights to properties where the rights were sold for reasons of financial necessity during the recent drought. As far as may be possible, action should be taken to restore those rights.

Managers at all levels should realise that the introduction of drip-feed irrigation needs to be monitored if water consumption is to be reduced. Water entitlements must be revised in line with the savings achieved by use of drip-feeders. In one case, an already wealthy fruit farmer with 25 hectares of trees acquired an adjacent 200 hectare wheat farm. He constructed a large dam, filled by combining the wheat farm's 'Stock and Domestic' water entitlement with water which drip-feed irrigation had made surplus to his existing needs. Fruit trees watered from the large dam were planted on at least 10 hectares of the former wheat farm. Was the farmer's initiative astute business practice or selfish greed? Who can say? It is clear however that wise and effective resource management would have forestalled his plans.

Reduction of Individual Water Rights

The proposal that individual farm water entitlements could be cut by 25% - 35% is ludicrous, and should be disregarded forthwith.

The authors of the proposal appear to lack elementary knowledge of the economics of farm operation. Enough has already been said at public meetings, save to say that very real alternatives are available, as described under the next following sub-heading "More Water and Pure Water"

Australia's farmers are custodians of an abundance of local knowledge not to be found in textbooks, and unknown to academics and men of science. Anyone can plant a grape vine or grow a hectare of lucerne, but only those with years of on-site experience will achieve optimum results. The local knowledge base must be preserved.

More Water and Pure Water

More Water? Yes indeed!

In the 1970s, the construction of a new dam across the Goulburn River at Seymour, Victoria was considered. The proposal was filed and forgotten

At the time, staff of the State Rivers and Water Supply Commission advised that the dam wall would extend across the river from Rifle Range Hill, at Seymour, Victoria, and specified the proposed 'resumption level'. The term 'resumption level' denotes the height of the spillway, the point at which the river resumes its flow.

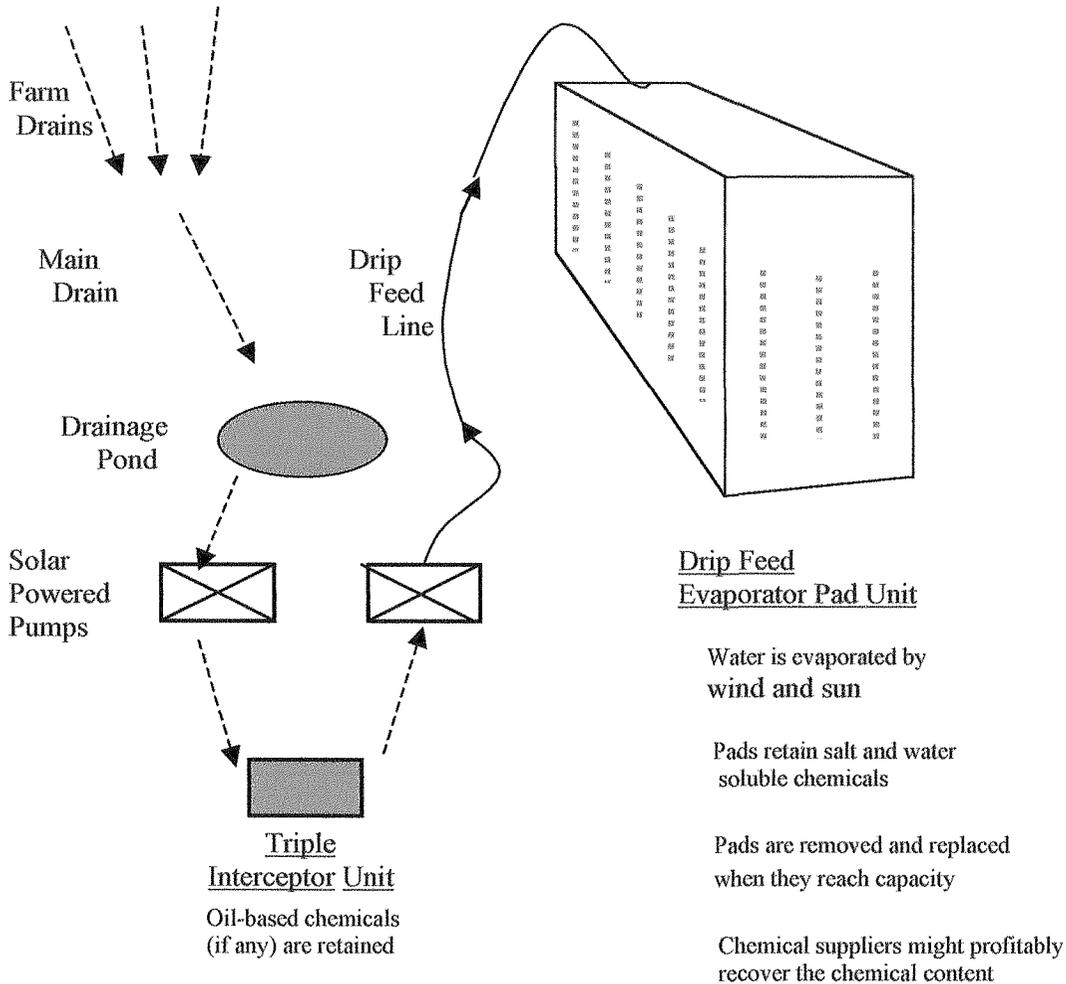
Research, tracing contour lines on National Survey 1 : 63360 maps, determined that the reservoir created would fill the valley upstream to a point about three or four kilometres from the township of Yea, some 40 kilometres to the east.

If the proposal is revived there would doubtless be objections from landholders and possibly from the proprietors of the Trawool Resort. Nevertheless, the proposed reservoir would benefit an enormous area of land downstream, including the rice farming areas of southern NSW. Substantial aquaculture could be developed along the new reservoir's margins.

Pure Water ? - The Author's Concept

Pure river water, or at least water less contaminated by salt and chemical runoff, is possible. Scientists have already encouraged planting of trees at drainage concentration points. The trees are intended to absorb contaminated drainage water and thus prevent its re-entry to rivers.

Tree planting is not always possible. The author's concept for decontamination of drainage water is illustrated below.



Regulation of Land Use

In relatively recent years some unusual crops have appeared in the Murray-Darling Basin, again evidencing the mindset that sees water in any river as an available resource

At Swan Hill, Victoria, strawberries have been commercially grown, albeit on a small scale, and large scale lettuce production would have commenced but for the recent drought.. Near the Wakool River at Kyalite, NSW, there is an irrigated potato farm.

It is not unfair to ask whether these crops, all heavily water dependent, should be grown in the Murray-Darling Basin at all.. The Wandin area east of Melbourne has long supplied Victoria's fresh strawberry needs, with the supply sometimes being supplemented from Queensland. Market garden lettuce grow at Werribee near

Melbourne. The great volume of potable water produced daily at Werribee's sewage treatment farm* would support market gardening on a national scale. Victoria's Ballarat district, together with areas in South Gippsland and in Tasmania enjoy ample rainfall and produce potatoes in abundance.

Innovative land use is doubtless encouraged by parochialism – any development which might expand a local economy is seen as good. Parochial attitudes emphasise the need for a structured management system with an independent audit function.

Regulation of land use throughout the Murray-Darling network deserves consideration.

* Much of the water is presently used to irrigate the farm's paddocks where beef cattle graze. Any surplus flows into Port Phillip Bay.

Tour guides routinely drink a glass of the outflow water to demonstrate its purity to visitors.

Towards Environmental Equilibrium

Men now perhaps eighty years of age are adamant that too many small Murray Cod are being taken by anglers. Their wisdom is to be respected.

Fifty years ago, visiting uncles would bring Cod weighing sixty pounds (27 kg) to my family's Melbourne dinner table, and specimens weighing one hundred pounds (45 kg) were not uncommon. Cod in this size range are rarely seen today.

Efforts to maintain fish stocks by specifying a minimum size for the various species sought by anglers have had limited success.

Consideration might now be given to:

- specifying maximum legal sizes as well, so as to maintain a good broodstock of mature fish.
- marking off rivers into fifty or one hundred kilometre stretches, with alternating stretches being closed to fishing for a period of ten to fifteen years. Along rivers where fishing is a tourist drawcard, the marking off could be done between easily-identified infrastructures. For example at Albury-Wodonga: "River closed upstream from the Causeway Bridge to the Hume Dam", "River open downstream from the Causeway Bridge to the Howlong Bridge", and so forth. The rivers would then remain easily accessible by tourist anglers. .

By these means, the natural ecology of rivers could be slowly but surely restored. There are no 'quick fixes', the damage of decades cannot be corrected in a day.

Crime and Punishment

In the halcyon days of the 1950s, an orange grower near Boundary Bend would sometimes keep his son home from school to help with orange picking. But woe betide the son if he wagged school to go fishing! Both father and son broke the law, but there were no ill effects in the longer term. 'Water picking' is another matter.

The halcyon days have passed, but 'water picking' has been allowed to continue with abandon. The Murray Darling Basin Commission, the Murray Darling Basin Authority, State Governments and various water distributors can no longer conceal their collective carelessness and incompetence. But the incompetence continues : lies, damned lies and statistics have fathered a new Murray Darling Basin Plan, a Plan promptly burnt on public bonfires. The Murray Darling Basin Authority and Governments alike are determined to conceal the mismanagement of our rivers. Who can justify the remarkable allocations of water to corporate interests in relatively recent times? Who permitted 'Stock & Domestic' water to be used for newly planted orchard irrigation? Who can explain why the 'filed and forgotten' option of a new Goulburn River reservoir remains hidden in Government archives despite ten years of drought? And why was Canberra's Lake Burley Griffin not drained to benefit drought-ravaged farmland? There appears to be ample *prima facie* evidence which might allow Federal and State Police Forces to examine the probity of past decisions.

The men of science who contributed to the Murray Darling Basin Plan appear to have had little regard for the work of the great naturalist Sir Charles Darwin. Sir Charles would have accepted that droughts and flooding rains are a permanent feature of the Australian climate, and a major factor in the process of natural selection and survival of the fittest. The Murray River is known to have run dry in places during the early days of settlement, but winter rain saw Murray Cod and river crayfish regenerate in abundance.

Regulation of flow in the river network does not always assist survival of the fittest, as witness fish boiled alive in pools of the Darling River when water released at Menindee flowed slowly down a riverbed baked dry by summer sun. Did the Menindee Scheme hold back water for too long? Could the release have been delayed until the riverbed cooled ? Altogether a sad event that emphasises the need for both managers and scientists to access the knowledge of men with years of hands-on experience. See Management Myths - page 4.

The much-spoken of practice of two major supermarket chains buying entire fruit and vegetable crops at pre-arranged farm gate prices does not engender national health. The produce can remain in storage for weeks, as evidenced by the progressive oxidation and browning of lettuce stems. Vital nutrient content falls. The mesmerising jingle "We are the Fresh Food People" is a falsehood. The practice of buying entire crops might never have advanced to its present volume save for the appearance of irrigation water on dryland farms, the parochial encouragement of novel, unusual crops, and careless 'management' by water authorities.

Whether arguments favouring environmental flows are driven by science alone is a moot point. There is talk of substantial waterside resorts having been built near the Murray River's mouth in South Australia. The resorts represent millions of dollars

worth of investment, but there has been no water to fill their marinas, let alone ensure a return on investment during the drought. Has crass political lobbying by resort developers led to the sudden interest in environmental flows?

Rural Australians have long accepted that farming is a gamble, even on irrigated land. Perhaps the time has come to tell resort developers and investors that their projects are a gamble too.

Will the Gillard Government now act to stop massive corporate consumption of water? That water was never available for allocation on a corporate scale. Will Police Commissioners investigate possible negligence, bribery, and corruption? Will the Honourable Members now in Government pander to corporate wealth, sponsor the widely rejected Murray Darling Basin Plan, and destroy the lives of thousands of Australians, country and city dwellers alike? Time will tell.

Conclusion

Rural communities have resolutely borne the hardship of a ten-year drought, and are now challenged with the devastation brought by the greatest flood in recorded history. They have no need of water entitlement cuts and further suffering as a consequence of subtle political ambition, combined with academic ignorance and blatant carelessness in water resource management. Good science will always be welcome among farmers, but there is no place for guesswork, let alone ill-advised 'quick fix' legislation.

The four volume document that purports to be a Murray Darling Basin Plan is more akin to an evil plot.

Governments must now act promptly to restore confidence to farm communities. We cannot allow continued incompetent management of water at Federal or State level. We can no longer afford it.

o-o-o-o-o

The extent of the proceedings now before the Standing Committee on Regional Australia is challenging. The journey might even appear forbidding. The words of Chairman Mao offer encouragement : "The longest journey starts with just one step".

May God sustain the Standing Committee on its journey; may He be pleased to bless Committee Members with true wisdom.

Frank Conway

26 January 2011

FAR AWAY

With thanks to "The Seekers" for inspiration, and to God
for "a world of our own," in the Australian countryside



Far away from the city . . .
The world is at peace
Hear the birds at first light
Practice songs for their feast

And their feasting begins
In the Sun's early rays,
No choir can match them
No orchestra play . . .

Far away from the city . . .
Men stir from their rest,
Keen to get on with
The jobs they do best

Fruit and vegetable growing,
Or waiting for rain . . .
That will sprout tiny seeds
For a harvest of grain

Far away from the city . . .
The Friesian cows graze,
Their milk gladly given
On all seven days

The dairy herd master
Rarely knows a weekend,
But he knows each cow's name
And each cow is his friend

The grazier's sheep grow
Their fine woollen coats,
While mountain-bred cattle
Grow fat on good oats

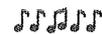
And the breeder of pigs
Fairly grunts at the sight
Of Roast Pork with Crackling
For dinner each night!

Far away from the city . . .
Hear the Rooster at dawn
Sending Hens to lay eggs
Or watch Chickens newborn

Far away in the city,
With bacon and eggs,
And fine woollen clothing
To cover bare legs

Far away in the city,
With well-buttered bread,
A prayer for our Farmers
Might now please be said :

"Thank you Lord for the Farmers,
Let them sleep well at nights"
*"Far away from the city
and the bright city lights . . ."*



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