

THE WHEAT INDUSTRY IN SOUTH AUSTRALIA

An Optimistic Outlook

Application of Up-to-date Methods Will Enhance the Yield

Professor Richardson's Assurances

The Director of the Waite Agricultural Research Institute (Professor A. E. V. Richardson) assured the members of the Rotary Club on Friday that by the adoption of up-to-date methods of cultivation and the application of motive power, the wheat industry in South Australia would have a prosperous future.

At the weekly luncheon of the Rotary Club on Friday Mr. H. J. Flinnis occupied the chair, and the speaker was the Director of the Waite Agricultural Research Institute (Professor A. E. V. Richardson), who spoke on "The Wheat Industry: Its Present Position and Future Development."

Agricultural Depression

Professor Richardson said the agricultural industries the world over had recently passed through a period of severe depression, owing to the decline of prices of agricultural products towards pre-war levels. For a generation past there has been a steady and continuous drift of population from the country to the cities. This drift of rural population was a world-wide phenomenon, and during recent years had become accelerated owing to the conditions engendered by post-war depression. Notwithstanding the depopulation of the countryside, which was a marked feature of every agricultural country, the total production of farm products had steadily in-

creased. Nowhere was the loss of rural population more pronounced than in the United States, where the farm population had declined by three millions during the last seven years. But the actual volume of farm products in the United States had increased by 5 per cent, and that of animal products by 15 per cent, during the same period. The world's food supply had been increasing at a greater rate than the increase of population, and prices of agricultural commodities had fallen rapidly towards pre-war levels. Owing to a succession of favorable seasons in the Northern Hemisphere, the supply of wheat had increased beyond the immediate needs of the consuming countries, and the industry was faced with a critical situation. No one could forecast what the future might hold, but it must be apparent that if the price of wheat fell much further the position of many settlers in light rainfall country and men on small areas would be critical. Despite the present difficulties that confronted the wheat industry, however, there were justifiable grounds for optimism.



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Progress of the Wheat Industry.

Wheat and wool were the key industries of South Australia. The progress of the State was dependent upon the continued expansion and development of these important staple industries. The average annual value of wheat production for the past five years had been \$8,800,000, while the value of pastoral production had averaged \$7,250,000. Competent authorities had estimated that the area of land suited for wheat culture in South Australia was at least 16 million acres of which four million acres might be annually cropped. It was clear that a considerable expansion of wheat production was possible. Even more important for the future wellbeing of the industry was the certainty that the average yield per acre could be greatly increased, and that costs of production could be lowered. The productivity of each acre, and each individual farm worker might be greatly increased by the application of technical and scientific knowledge to wheat-growing. Also costs of production might be reduced, and the output per farm worker increased by the greater use of mechanical power and machinery on the farm. With increased yields per acre and lowered costs of production, the wheat industry of South Australia would expand, perhaps more rapidly in the future than in the past. Increased yields per acre demanded a higher standard of efficiency on the part of the farmer, and involved bringing all the resources of science and invention to his aid.

Wheat Yield and Rainfall

A very close correlation existed between the rainfall during the growing period of the crop and the average wheat yield of the State. The recent rains had fallen at a time corresponding with 1916, when there was a heavy yield. The average rainfall of the wheat belt of South Australia during the crop-growing period (May to October) was approximately 11 1/2 inches. The average yield of the State for the past 10 years was approximately 12 bushels per acre. Thus during the last ten years the wheat farmers of South Australia had produced a bushel of wheat per acre for every inch of rain during the crop-growing period. Forty years ago they produced considerably less than half a bushel per acre for every inch of rain. For seasons of moderate rainfall—from 10 to 15 inches during the crop-growing period with a normal distribution—the average State wheat yield in bushels per acre was approximately equal to the composite May-October rainfall expressed in inches. In dry seasons, that was less than ten inches, and in wet years, over 15 inches of winter rain, the amount of wheat produced per acre was less than a bushel per inch of rain.

Investigations had shown that each inch of rainfall during the crop-growing period was sufficient to produce 3 1/2 bushels of wheat per acre, instead of one bushel per inch, which was the average for South Australia. Investigations had also shown that many farmers, both in Victoria and South Australia, actually had reaped over three bushels of wheat for every inch of seasonal rainfall. In 1925-7, when the average wheat yield of South Australia was 12.84 bushels, there were 81 farmers who obtained average yields ranging from 33 to 45 bushels per acre. The wheatgrowers of South Australia were actually reaping less than one-third of this yield. It was therefore evident that a material increase in the yield per acre was possible before the limits imposed by the rainfall were approached. Rainfall was an important and fundamental factor in wheat yield, but it could be safely affirmed that the average rainfall of the South Australian wheat belt was sufficient to permit of a 50 per cent. increase in the average yield per acre.

Efficiency of Production

They might also study with profit what might be termed the efficiency of production of South Australian wheat growers as expressed by the average yields per acre they normally obtained. The season 1926 was a favorable cereal year for South Australia, 25 1/2 million bushels being produced. The average

Four Essentials

In considering the factors for successful wheat culture in South Australia, it was necessary to remember that the bulk of the wheat was grown on an area of limited rainfall, and that about 75 per cent. of the annual rain fell during the growing period of the crop. From the point of view of maximum production, four essentials were necessary.—1. Conservation of moisture by early fallowing and thorough working of the fallows. 2. Liberal use of soluble phosphates. 3. Regular crop rotation and association of sheep with wheat growing. 4. The use of productive wheat varieties and the rational treatment of seed. The observance of these principles would make for the production of heavy wheat crops. They were the foundations of successful wheat growing from the cultural standpoint.

After quoting a number of examples of the benefits of fallowing, Dr. Richardson said that the yield of wheat on stubble land, it was clear that the present average yield of wheat in South Australia was largely dependent on the standard of wheat farming, and in particular on the extent of fallowing in the Murray, mallee, and the western division, which furnished nearly half the annual acreage under wheat.

Developments in Other Countries

Efficient management was essential to cheapen costs at every possible point, and to meet the competition of other countries. Hitherto, the Australian wheatgrowers had been able to meet world competition notwithstanding distance from the world's markets, and the relatively high costs of labor and farm machinery. Important developments were taking place in the United States and Canada which would ultimately lead to a considerable reduction in the cost of wheat-growing. These were the immense increase in the use of mechanical power on the farm, and the rise of the large agricultural corporation, which managed a chain of farms and applied modern industrial methods to wheat farming. Mechanical power was gradually changing the whole system of farming in the United States, and was bringing about a revolution which had many similarities to the industrial revolution which followed the introduction of steam power. Agriculture, among the great fundamental industries, although the greatest of all consumers of power, was the last to receive the benefits of mechanical power, and was to-day still in a period of adjustment to its application. The 200,000 tractors that were being produced annually contained great promise that in the future agriculture would enjoy the same benefits of cheap power that general industry accepted as a matter of course. The influence of the tractor in increasing the wheat producing power of labor and reducing costs was shown by the fact that efficiently operated tractor farms could raise an acre of wheat with only two hours of man labor, where at least six to eight hours of labor were required per acre without tractors. The mechanisation of the farm in United States had cut production costs by one-third to two-thirds of that required for horse farming, and trebled the acreage which could be cultivated per man. Wheatgrowers were compelled to accept world parity for their products so long as there was a surplus beyond domestic requirements. They had been inclined to pay attention to the factor of price of the product rather than to the cost of its production. Price was entirely beyond the wheat-growers' control, although cost of production was, within limits, subject to control.

The Agricultural Corporation.

Modern industrial development had converted innumerable small inefficient business units which did not render themselves or the public adequate service, into large efficient undertakings. The principles of big business were now being applied to agriculture in the United States with surprisingly satisfactory results. Large agricultural corporations had arisen which operated a chain of farms in the same manner as large selling organisations operated a chain of stores, under a central management. These corporations had demonstrated that enlarged farming units could be operated far more efficiently than small units. The Campbell Farming Corporation in Montana operated 100,000 acres of land, and cropped regularly 50,000 acres of wheat. A single managerial organisation, the Peters Trust of Omaha, operated 250,000 acres of land in 600 farms scattered over five States. One such corporation recently declared a 30 per cent. dividend. The productivity of each acre of wheat land in South Australia could be considerably increased by the wider application of knowledge, scientific and technical, already available. In the light of recent experience in other countries, production costs could be greatly reduced by efficient management, the use of larger units for cultivation, and the development of power farming.

THE NEWS

SATURDAY, DECEMBER 29, 1928

BEAUTY OF WORDS

(By R. C. Bald, Lecturer in English at Adelaide University)

From time to time discussions arise on the most beautiful word or words in the language. But those who take part in them seem often to be led astray through not being clear in regard to what they are seeking.

Words are, of course, the outward and visible expression of ideas. They symbolise some feeling or notion in the human mind round which countless associations and memories are grouped. On the other hand, words are also just a collection of sounds made by certain movements of the tongue and throat as the breath is expelled from the lungs.

There are, then, two senses in which words can be beautiful—for the ideas they represent and for their inherent beauty of sound and rhythm, apart from their meaning. That words and sentences can be beautiful in the second sense is acknowledged more often than most people realise. It may be that a tribute is paid to the charm of an Irish accent against an affected English one, or to a soft Virginian accent compared with a harsh Middle Western one; or the praise may be given to the enunciation of some great actor. But in each case it is the beauty of the sounds spoken rather than their meaning that is praised.

Sound and Sense

Arnold Bennett, famous English novelist, once said that the most beautiful word in our language was "pavement." When he expressed this opinion he was thinking of the sound of the word, and the sound alone.

Although it is possible to make a distinction between the sound and the sense of a word it is rarely that it is possible to separate them. Nevertheless, it is important to realise that it is possible to regard words from these two points of view, for the distinction has far-reaching consequences.

The man who believes that "truth" or "love" is the most beautiful word, and the one who holds out for "pavement," have their counterparts among the great thinkers and writers. The philosopher with a vision of truth or moral beauty to express is concerned far more with what he says than how he says it, but the man who thinks first of the beauty of words—of their melody and rhythm and arrangement—is the poet.

Words and Their Setting

However much one may feel the beauty of a word, it is absurd to make it stand alone. It is lost by itself, like a diamond uncut and unset. It is only when it is put alongside other words that all its power can be felt.

Coleridge long ago defined poetry as "the best words in the best order." It is only when in perfect company that certain words have the power to outshine their companions with a sense of richness and strangeness.

A famous example of this is to be found in Shakespeare's "Macbeth." After murdering King Duncan, Macbeth looks at his bloodstained hands and says:—

"Will all great Neptune's ocean wash this blood
Clean from my hand? No; this my hand
Will rather
The multitudinous seas incarnadine,
Making the green one red."

"Multitudinous" is a magnificent word in such a context, but the rare rich-sounding word "incarnadine" is superb.

It will be found that the poets have often enshrined some such lovely word in their lines; some have piled them up in heaps to obtain an effect of exotic richness. One has this feeling in reading the opening lines of the song in Browning's "Paracelus":—

"Bees, casia, sandal-buds, and stripes
Of labdanum, and sloe-balls
Smear'd with dull hard an Indian wiper
From out her hair."

The same effect is felt in the speech of The Chief Grocer in Flecker's "Golden Journey to Samarkand":—

"We have rose-candy, we have spikenard,
Mastic and turbinth and oil and spice,
And such sweet jams meticulously jarred
As God's Own Prophet eats in Paradise."

It would almost be profanation to look up all these strange words in a dictionary. The reader is meant to enjoy them for their beauty of sound alone.

Onomatopoeia

It is sometimes said that poets have such skill over words that they can actually imitate sounds that they are describing. This process is called by the incomparably clumsy and ugly name of onomatopoeia. In fact, however, the poet does little more than to suggest by the sound of his words something of the atmosphere he wished to create. He no more attempts to reproduce the actual sounds than a musician would have a realistic imitation of the crowing of cocks or the bleating of sheep in the pastoral movement of a symphony.

There is a magic in words, a delicate magic, that vanishes when they are forced to an alien task. Writers who attempt too often to make the sound an echo to the sense seem to be indulging in a deliberate and self-conscious effort that destroys the spontaneous charm of their work. The beauty of words is their own, and their rhythm is the natural outpouring of sensitive feeling and deep emotion.

THE ECONOMIC SOCIETY.

LECTURE BY MR. L. G. MELVILLE.

Under the auspices of the Economic Society, at the Prince of Wales Theatre, Adelaide University, last night, an address on "The Economic Effects of Federation," prepared by the Public Actuary (Mr. L. G. Melville), in collaboration with Mr. J. M. Wainwright, was delivered by Mr. Melville. Mr. J. Wallace Sandford occupied the chair.

Mr. Melville, in giving a general outline of the history of the State since Federation, stressed particularly the increasing amounts available to the Commonwealth for ordinary expenditure prior to 1928, and the increasing financial stringency, due largely to the intrusion of the Commonwealth upon activities previously recognised as belonging to the States. He dealt with the tendency towards the financial supremacy of the Commonwealth, accelerated by the war, and the buoyancy of Customs and Excise revenue caused by post-war inflation, making particular reference to the effect of the protective tariff on the States. The result of attempts to populate and develop Australia on the part of the Commonwealth, by increasing tariff and prohibition of imports, he said, had thrown unequal strains upon the different State Treasuries and resulted in the embarrassment of States producing proportionately the smallest amount of protected goods, but encouraging the development of primary industries. Special grants by the Commonwealth Parliament to Western Australia and Tasmania had made those States to some extent vassal States, and introduced the possibility of "log rolling" on a colossal scale. Extended control by the Commonwealth over industrial legislation and the application of power to State instrumentalities had resulted in some States being unable to raise their taxation sufficiently to meet the increasing expenditure. The tariff had stimulated secondary industries in those places which were most suited for the establishment of manufactures and which were mainly located in Victoria and New South Wales. Since 1908 the quantity of manufacturing production per head had increased in Victoria by about 50 per cent., New South Wales by approximately 40 per cent., and in Queensland and South Australia 10 per cent. The industries so established charged a much higher price on the average for the goods produced than the price for which similar goods could be imported from overseas in the absence of a tariff. Virtually, therefore, an invisible tax had been imposed in order to establish industries. An important aspect of the protective system from the point of view of the Commonwealth was that in times of great trade activity and heavy capital expenditure there was an abnormal inflation of Customs. Apart from the danger that the Commonwealth Government would thus be induced to Budget upon an abnormal revenue during such a period of inflation, this meant that a considerable portion of Commonwealth revenue was in reality capital borrowed by the Commonwealth and States, and new money coming into Australia from private sources. The policy tended to accentuate booms and the subsequent depressions. The incidence of taxation due to the tariff was difficult to determine. It was not only the incidence of the Customs duties which was important, but also the incidence of the invisible tax, which experts declared to be in the vicinity of £40,000,000 per annum. Most secondary industries were in a position to pass on this tax, and a large portion of it had to be borne finally by the unprotected primary industries, the greatest amount per capita falling on those States producing the greatest amount of unprotected and unsubsidised goods for export per head of population.

Fiscal Effects of Secession.

In adumbrating the fiscal effects of secession, Mr. Melville stated that it was a matter of some interest to consider what would be the financial position of South Australia were she to secede from the Commonwealth. According to calculations, the people of South Australia were paying to protected industries a subsidy of £6.34 per head, or £3,500,000 per annum for protected goods manufactured locally, over and above that at which they could be imported. Protected industries in South Australia were receiving £3.93 per head, or £2,170,000 per annum more than the price at which the goods they made could be imported. The consumers in South Australia were paying to protected industries in this State about £1,470,000, and in other States £2,030,000. If South Australia were to secede from the Commonwealth it could import from overseas protected goods now imported from other States. The goods could then be sold at their present price, but the State would collect an extra £2,030,000 by way of Customs duties. Probably about £700,000 would be needed as compensation to those State industries whose goods would be excluded from the inter-State market, but South Australia would still benefit immediately to the extent of about £1,330,000 per annum.