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CHAPTER II.

AGRICULTURE IN QUEENSLAND.

Tripartite Division of Queensland.—Climate.—Development of Agriculture in Queensland.—Wide Range of Products.—Early History.—Exclusion of Farmers from Richest Lands.—Origin of Mixed Farming.—Extension of Industry Westward.—Inexperience of Early Settlers.—Cotton-growing.—Chief Crops.—Dairying.—Cereal-growing.—Farming in the Tropics.—Farming on the Downs.—Farming in the West.—Irrigation.—Conservation of Water.—Timber Industry.—Land Selection.—Assistance Given by the Government.—Immigration.—Attractions of Queensland.—Defenders of Hearth and Home.

Situated between 10½ degrees and 29 degrees South latitude and 138 degrees and 153½ degrees East longitude, Queensland covers 670,500 square miles, or 429,120,000 acres—greater than the combined areas of France, Germany, and Austro-Hungary. Of this immense territory 53.5 per cent. lies within the Tropics, and 46.5 per cent. within the South Temperate Zone.

The State may be divided into three belts—the tropical, stretching from Cape York to the 21st parallel in the neighbourhood of Mackay; the sub-tropical, between Mackay and Gladstone, about 24 degrees South; and the temperate, from Gladstone to the 29th parallel on the border of New South Wales.

These three zones lend themselves, in turn, to a tripartite subdivision of littoral, tableland, and Western plain. Running generally in a North and South direction, and distant from the Eastern coast 30 to 100 miles, the Great Dividing Range separates the littoral from a series of tablelands having an altitude of 3,000 ft. at the two extremes, with a lesser elevation between Herberton in the North and the Darling Downs in the South. Almost imperceptibly the intermediate plateau sinks into a vast plain, which extends westward for hundreds of miles and into South Australia.

The mountain barrier between coast and tableland, though rarely exceeding 4,000 ft. in height, is still sufficiently lofty to cause the clouds of the Pacific to deposit most of their moisture on the Eastern slopes. The precipitation in this coastal belt ranges from a yearly average of 135 in. at Geraldton (at the foot of the Bellenden-Ker Mountains, in the North) to 40 in. between the Tropic of Capricorn and Brisbane, with a heavier fall wherever the mountains are in close proximity to the ocean. On the Western side of the Great Divide the rainfall decreases from 40 in.
but steadily agriculture is coming to the front, and, long before the present pursuits and mining have been the principal wealth-producers in the past; but steadily agriculture is coming to the front, and, long before the present generation has passed away, will occupy first place among the primary industries. That it has not done so already is due partly to the comparative youth of the country and its small population, and partly to its rich natural pastures and vast mineral resources. For many years the fascination of a pastoral life and the search for gold, with the hope of winning fortunes in those avocations, proved more attractive than the regular, uneventful life of the farmer, with its prospect of a competence; but the old-time glamour of grazing and mining is passing away, and the generation has passed away, will occupy first place among the primary industries. That it has not done so already is due partly to the comparative youth of the country and its small population, and partly to its rich natural pastures and vast mineral resources. For many years the fascination of a pastoral life and the search for gold, with the hope of winning fortunes in those avocations, proved more attractive than the regular, uneventful life of the farmer, with its prospect of a competence; but the old-time glamour of grazing and mining is passing away, and the independence of the farmer is now preferred to the lot of station hand or working miner.

On the inestimable value of a rural population to the permanent well-being of a nation Mr. Roosevelt, the late President of the United States, lays stress in these pregnant words:

“I warn my countrymen that the great recent progress made in city life is not a full measure of our civilisation; for our civilisation rests at bottom on the wholesomeness, the attractiveness, and the completeness, as well as the prosperity, of life in the country. The men and women on the farms stand for what is fundamentally best and most needed in our national life. Upon the development of country life rests ultimately our ability, by methods of farming requiring the highest intelligence, to continue to feed and clothe the hungry nations; to supply the city with fresh blood, clean bodies, and clear brains that can endure the terrific strain of modern life; we need the development of men in the open country, who will be in the future, as in the past, the stay and strength of the nation in time of war, and its guiding and controlling spirit in time of peace.”

Too large a proportion of the people of Australia is already congregated in the capital cities on the seaboard, and this centripetal tendency constitutes one of the problems most difficult of solution in our young communities, as it is proving in the older countries of the world. Here, however, we are not confronted with the obstacle of high-priced land, and no effort is being spared to turn the tide of settlement to the true source of national virility and prosperity—the land.

The suitability of the State for agriculture is amply demonstrated by the condition of those engaged in that industry, for there is no considerable class in the community so prosperous. Comfortable homes, well-stocked farms, overflowing barns, and other evidence of labour richly rewarded, bear witness to this fact. The abundance of a series of fat years more than compensates for the loss of crops and stock in occasional-years of drought, and these losses it is possible to minimise by devoting attention to afforestation, the conservation of water, irrigation, and the storage of fodder.

Diversity of products is to be expected in a country stretching through 18° 1/2 degrees of latitude, possessing an infinite variety of soils, and divided into a hot and humid coastal belt, an elevated tableland with cool climate and moderate rainfall, and a huge plain with light rainfall and dry, invigorating atmosphere. There is probably no country in the world with so wide an agricultural range. To mention crops which can be, and are being, grown with gratifying results would be to set forth in detail nearly every crop of economic value found in the torrid or the temperate zone. Wherever Nature is so generous with her gifts there must be accompanying drawbacks in the shape of vegetable and insect pests, but, by the application of intelligence and industry, the farmers of Queensland are able to combat these petty foes.

Some of the principal objects of culture have a remarkably extensive distribution. Citrus fruits, fodder crops and artificial grasses, pumpkins and melons, flourish in every part of the State. Maize is very prolific throughout the littoral and on the tableland. Sugar-cane and tropical fruits grow luxuriously on all the coastal lands. Most of the fruits of the British Isles and Continental Europe are at home everywhere except on the coast north of the Tropic of Capricorn, and reach perfection on the elevated lands of the Darling Downs. Cereals and root crops are produced in the Southern and Central West districts equal in quality and yield to the crops in the Southern States and overseas countries.

"Agriculture," says Professor Robert Wallace, of Edinburgh University, "is one of the oldest of human arts, dating from long before the dawn of history. The savage who lives on the roots and fruits he finds ready to his hand stands lower in the scale than the huntsman living by the chase. The herdsman leading a nomadic life belongs to a higher stage of human culture; but civilisation in any full sense only begins amongst men with settled habitations, who till the soil for their sustenance." Judged by this standard, Queensland has passed through the evolutionary stages. Eighty-five years ago, when the first British settlers
landed on the shores of Moreton Bay, the country was sparsely inhabited by savages of the lowest type, dependent upon native roots and fruits and the chase for a subsistence. For a quarter of a century, settlement on the coast was confined to a few convicts and military guards stationed at Brisbane and Ipswich, and a handful of free settlers. In the year 1840 some adventurous spirits, searching for sheep country west of the Main Range, found themselves on the magnificent tableland which Allan Cunningham had discovered in 1827, and which, during the intervening years, had remained untrdden by the foot of a white man. Soon the whole of the Darling Downs was parcelled out into large sheep stations. Agriculture, until the advent of small selectors many years later, was only represented by garden patches of cereals, vegetables, and fruit trees, grown for the use of the station-owners and their employees.

On the Eastern side of the Range the industry was in almost as backward a state before the arrival of the first shipment of agriculturists in the ship “Fortitude” in January, 1849. Gangs of convicts felled the scrub on the banks of the Brisbane River adjacent to the barracks; with the hoe they planted maize among the stumps and tree-trunks under the constant surveillance of armed guards, and, when the corn was ripe, dragged it in carts to the windmill on Wickham terrace, still a conspicuous landmark, though now used as an observatory. There the maize was ground into “hominy,” an important item in the menu of those days.

A band of Moravian missionaries settled at what is now known as Nundah, and they and the majority of the “Fortitude” immigrants were the real pioneers of agriculture in the infant settlement.

Land orders, free immigration, and the discovery of gold were all factors in the development of the country, and the demand for farm lands led to the unlocking of areas previously given over to grazing. The pastoralists regarded agriculturists with disfavour, and in some cases with open antagonism. By the exercise of “pre-emptive rights,” which their influence in the Legislature secured for them, they converted into freehold large blocks of the best land, as well as strategic areas by the possession of which they were able to close against settlement immense tracts preeminently suitable for farming. This was particularly the case in the settled districts of Moreton, Darling Downs, Wide Bay, and Burnett, and to a lesser degree in Maranoa. To such an extent was the right of pre-emption used that many squatters seriously crippled themselves, the price paid being too high for grazing to be remunerative on their freehold lands.
When, in after years, it would have been to their advantage to subdivide and sell to farmers, it was not in their power to give titles. In the course of time railways were built through some of these large estates, but their earning power was seriously hampered by country capable of supporting a very large agricultural population being devoted to pasturing sheep and cattle. As the most satisfactory solution of the difficulty, successive Governments have repurchased a number of properties at a cost exceeding a million sterling, and resold them in small areas to farmers, with highly gratifying results both to the settlers and to the State.

The immediate effect of the exclusive policy adopted by the pastoralists, however, was to force many selectors to take up land in dense scrubs on steep mountain slopes and in river pockets which were useless to stockowners. They had literally to hew their homes out of the jungle. Having no roads, they were thrown upon their own resources, and were obliged to live very largely upon the produce of their farms. Erecting a rude makeshift fence around a clearing of a few acres, the "cocky" or "cockatoo farmer," as he was contemptuously styled by those who regarded him as an interloper, planted maize and pumpkins among the remains of the scrub. Despite the ravages of bird and beast, he persevered, until at last success began to crown his efforts. A cow or two provided him with milk and butter, any surplus butter being sold to the storekeepers in the towns which quickly followed in the wake of settlement. Lucerne, sorghum, and other fodder crops formed part of his husbandry, live stock multiplied, and thus commenced that system of mixed farming to which thousands of the farmers of Queensland owe their prosperity. The coming of neighbours and the making of roads rendered life less lonely. With increasing prosperity, improved implements and methods were adopted. The plough succeeded the hoe; the harvester or the reaper and binder took the place of sickle and scythe; and the slab humpy or bark hut gave way to the comfortable farmhouse.

Though these early selectors were driven into almost inaccessible scrub, they were at least within the region of heavy rainfall, and, even where some distance from permanent streams, suffered little from drought. Settlers who went over the Range, profiting by the experience of the pastoral pioneers regarding the vicissitudes of climate, avoided the mistake of relying upon a single crop, or, to use a homely phrase, of putting all their eggs in one basket—an error which brought ruin to thousands upon thousands of the people who, between thirty and forty years ago, flocked
from the Atlantic seaboard to the arid regions of America, west of the Mississippi. Mixed farming became the general rule on the further side of the Main Range, so that, if wheat and maize failed, the farmers had their flocks and herds and their shearing cheques as a standby until the next harvest was garnered.

It is sometimes said with scorn that there is comparatively little real farming in Queensland; but the conditions peculiar to settlement in the State are responsible for the trend of agricultural development. In the United States and Canada, the flood of immigration and the part played by the great railway companies as land-owners and promoters of settlement to provide traffic for their railways led to the creation of small holdings, which, in turn, led to intense cultivation of field and orchard crops. In Queensland, immigration has never been conducted on an extensive scale, and, indeed, for over a decade almost ceased. There was no great demand for land, and, as the mistaken belief long prevailed that the quantity of arable land was small, the area of so-called agricultural farms was made sufficiently large to enable a man to make a living from stock-raising, dairying, and pig-breeding. Field labourers being scarce and stock cheap, the farmer's aim has rather been to grow feed for his stock than crops for human consumption. He has followed the line of least resistance, so using his land as to carry on his operations with family labour and a little casual assistance during the busy seasons.

Events have justified this mixed farming from the point of view of the farmer, and doubtless the monthly returns from dairying will cause most of the farmers of Southern and Central Queensland to rely chiefly upon that industry so long as high prices continue, and to look to pig-breeding and lamb-fattening as subsidiary branches. But for the swelling tide of newcomers the supplies of rich scrub, alluvial flat, and volcanic downs country must sooner or later prove inadequate. Indeed, within the last few years settlers have been turning their attention to land which was once regarded as inferior. From the lighter soils of plain and upland larger and more certain crops of grain are being won, and on these lands dairying will take second place to cereal production.

Since an enlightened Legislature has resumed many millions of acres previously held under pastoral lease, and repurchased large estates in districts enjoying the advantages of railway communication, there has been no need to go far afield, and settlement has been chiefly confined to the lands adjacent to the rivers and railways in the coastal belt, on the Darling Downs, and, of recent years, in the Burnett district.

Still, within the last thirty years, from one cause or another, groups of settlers have made their homes far beyond those limits. Thus the wheat lands of Maranoa were settled when there was no farming more than a few miles to the west of Toowoomba. Over eighteen hundred years ago Tacitus wrote of our Saxon forefathers: "They live apart, each by himself, as woodside, plain, or fresh spring attracts him." And this racial characteristic is strong in many of their descendants in Queensland. Better results and greater profits might have accrued from concentration, but the wonderful development of the British Empire owes much to this centrifugal impulse and to the spirit of independence and self-reliance which it has fostered; and as the flag has followed the adventurer in so many parts of the globe, so are the scattered pioneers of our Western lands nuclei around whom settlement is gradually gathering.

To people coming for the most part from the mother country, experience constituted no safe guide to the agricultural possibilities of their new home in the South. Naturally, mistakes were made and time and money lost before they discovered which crops were the most profitable, and on what kind of land those crops could be grown with greatest certainty of success.

When Dr. Lang induced the "Fortitude" immigrants to cast in their lot with the Moreton Bay settlement, in whose welfare he took so deep an interest, his desire was to establish the cultivation of cotton, to which he believed the climate and soil were especially adapted. But, despite the heavy crops produced on the river flats, cotton did not prove remunerative until, after the outbreak of the American Civil War in 1861, the Lancashire spinners were reduced to such straits that they gladly paid high prices for all that could be obtained from Queensland. The product was of excellent quality, but the cost of picking precluded competition with countries where cheap labour was plentiful, and, with the return to normal conditions in the United States after the termination of the war, cotton passed almost out of cultivation, and has never since become a crop of commercial importance. An effort was made some years back to resuscitate the industry by the offer of a Government bonus upon manufactured piece goods. The bounty was earned by a mill at Ipswich, but the industry did not long survive the stoppage of the bonus. Since the drought of 1902 cotton has again been grown, principally in West Moreton and North
Queensland, as a subsidiary crop, and farmers have been encouraged to extend their operations by the recent offer of a bounty by the Commonwealth; but, until machinery takes the place of hand-picking, farmers are likely to prefer crops which are not subject to competition with the cheap labour of other lands.

The first European colonists in America found there two valuable native products—maize and tobacco. Australia, on the other hand, presented a virgin field to the agriculturist. Like the rest of the Commonwealth, Queensland, blessed with the richest natural pastures, possesses no indigenous food plants of proved economic value. The early settlers naturally availed themselves of the wealth of native grasses and edible shrubs, and became graziers. When a commencement was made with agriculture, farmers sowed the crops to which they had been accustomed in Great Britain. Though these grew well, it was soon found that they were, on the whole, better adapted to the elevated downs than to the forcing climate on the coast. Maize, sugar-cane, and the fruits of the tropics, on the other hand, revelled in the sunshine and moist atmosphere of the seaboard.

The farmer's first consideration is how he may utilise his land to the best advantage. The most profitable crops are those for which there is a world-wide demand but only a limited area of production, and therefore little competition for the grower; or, alternatively, crops which, by reason of natural advantages, he can produce more abundantly and at less cost than his competitors. Next in value are crops for which he has a monopoly in a limited but protected market, or enjoys natural advantages which give him a partial monopoly in such a market. Of less value, but still profitable, are crops which he can place on the market as cheaply as his rivals.

In the first-mentioned category the Queensland farmer has butter, cheese, hams, and bacon. With good stock, cheap land, unrivalled pastures, and a climate which permits production to go on uninterruptedly from January to December, Queensland is most favourably situated, and farmers have not been slow to profit by their natural advantages.

Large as are the present dimensions of the dairying industry, they are small compared with the possibilities of expansion. Already the value of butter, cheese, and milk is well over £1,000,000 per annum, the butter export alone being worth considerably more than half that sum. The export has multiplied tenfold in the last six years; and, as Queensland is
the leading cattle State, there is every justification for believing that in
dairy produce she will soon become one of the principal exporting States
of the Commonwealth.

So late as twenty years ago, much of the butter consumed in
Queensland came from the Southern States. The local product was
inferior in quality, although an agreeable change from the imported
salted butter. The passage of the protective tariff of 1888 gave a great
impetus to the production of butter and cheese. A heavy impost was
placed on dairy produce, and the Government lent further aid to the
industry by sending experts through the farming districts in charge of
travelling dairies. Valuable instruction was given; the cream separator
came into general use, and there was soon a noticeable improvement in
both butter and cheese. Factories sprang into existence in every agricul-
tural centre, and by degrees the farmers became suppliers of cream instead
of manufacturers of butter. Speedily production overtook the local con-
sumption, importations ceased, and manufacturers began to look oversea
for a market for their surplus stocks. Difficulties at once arose in connec-
tion with refrigerated space and freight rates. Regular shipments and
rapid transport involved transhipment at Sydney from the coastal
steamers, increased expense, and risk of deterioration. A State subsidy
induced first one and then another shipping company to make Brisbane its
terminal port in Australia, and to provide refrigerated chambers for
butter at reduced freights; and now Queensland, in respect of these
matters, is on precisely the same footing as the other States.

On the first appearance of Queensland butter in London, lower prices
were obtainable than were paid for other brands with an established
reputation, and some dissatisfaction was expressed by buyers on account
of variations in quality. To remedy this, legislation was passed providing
for Government inspection and grading of all butter intended for export.
Whether grading and price do or do not stand in the relations of cause
and effect, it is beyond dispute that it is only since the initiation of the
system that Queensland butter has been on a parity with the butter of the
Southern States and New Zealand, and the general standard is undoubtedly
higher than in pre-grading days.

Coincident with the improvement in the quality of the butter, a great
change for the better has taken place in the dairy herds. Good milking
strains have been introduced, and more attention is paid to the feeding of
the cows, with the result that it is by no means uncommon for the milk from one cow to bring as much as £8 or £9 a year.

The tariff of 1888 and the educative policy of successive Governments have also been largely responsible for the establishment of the allied industry of bacon and ham curing on a firm basis, and local brands are favourably known in many parts of the world.

Under the heading of crops for which our farmers enjoy a monopoly in a limited but protected market—or natural advantages which are equivalent to a partial monopoly—are sugar, maize, tomatoes, tropical and citrus fruits, and cigar tobacco. The Commonwealth tariff gives Queensland a practical monopoly in Australia for sugar. She has a virtual monopoly for tropical fruits, being the only State in which these are produced in excess of local requirements. The warmer climate and earlier crop give her temporary command of the Southern markets for citrus fruits, tomatoes, maize, and a number of minor products, before they mature in the cooler South, an advantage that will extend in time to many other crops, with the increasing interchange arising from interstate free trade.

Chief among products which can be placed as cheaply on the market as in other countries are the cereals. Queensland has all the essentials of a great grain-producing country. Her name does not yet figure among the list of exporters of foodstuffs, but the reasons for her backwardness are not far to seek.

At the close of 1908 the number of people in the State, scattered over its 670,500 square miles of territory, was only 558,000—little more than the population of Sydney or Melbourne, and less than that of several second-class cities in the mother country. Probably not more than ten per cent. of the people are engaged in farming, but, acre for acre and man for man, Queensland compares favourably with countries that are regarded as primarily agricultural. The lands most sought after have been scrub, deep alluvial flats, and black and chocolate loams; and, until recently, it was on land of this kind that most of the wheat and barley was grown. Heavy crops were harvested, as a rule, but the results were not uniformly satisfactory, and it is now recognised that these highly fertile lands are better suited for other forms of cultivation than the growth of cereals. For several years, incoming selectors—many Southern wheat farmers from preference—have been settling to the west of the heavy Downs country on the lighter soils of ridge and plain. From these lands,
agricultural country requiring so little labour to bring it under cultivation. Far beyond the horizon stretch these fine lands, formerly clothed with nutritious natural grasses, but now passing into cultivation and dotted over with prosperous homesteads. More than 70 per cent. of the wheat, oats, and barley of Queensland comes from the Downs, which are capable of supporting a population far larger than the whole State now contains. Shipments of malting barley grown on the Downs attracted such favourable notice in England a few years back that offers were made to buy large quantities, and modern and well-equipped malting houses have since been built at Toowoomba and Warwick by a leading firm of English maltsters. Oats are grown for hay, no grain being ground into meal. There is an increasing tendency, founded on experience, to look to the lighter soils for cereal production, and to put the heavier volcanic soils of the Eastern Downs to uses for which they are better adapted. To dairying much of the prosperity of the Downs farmers is due. Butter and cheese factories have been erected every few miles along the railway line, and the number of cream-cans awaiting transport on every platform bear striking testimony to the importance of the industry. Most of the fruits of Northern and Southern Europe flourish, and the many fine orchards between Stanthorpe and the New South Wales border are giving handsome returns to their fortunate owners. In the neighbourhood of Texas, to the west of Warwick, pipe tobacco of fine flavour is being cultivated. The extension of the railway from Warwick to Goondiwindi has rendered available additional areas suitable for this crop, and circumstances favour the creation of a great industry.

The boundless plains of the West, where the annual rainfall varies from 30 inches to 10 inches, are the seat of the pastoral industry, and agriculture is still in its infancy. In the vicinity of Roma, on the Southern and Western Railway, wheat is the staple crop. Further West, on river banks and adjacent to artesian bores, vegetables, grapes, and oranges are grown. The oranges at Barcaldine, in the Central West, have been pronounced by the Government Fruit Expert to be the finest he has seen. In the same locality areas of grain, lucerne, and other hay crops show the capabilities of the plain lands when irrigated; but these small patches do not constitute an industry. The soil has in it all the elements of fertility, and is of inexhaustible depth; but, unhappily, the rainy season does not coincide with the period of growth of the cereals for which these lands seem otherwise intended by Nature; and until science becomes the handmaid of
husbandry, and irrigation is demonstrated to be both practicable and remunerative, agriculture is likely to make little headway in the West.

The farmers of Queensland may well lay to heart the experience of America. Forty years ago disaster overtook every attempt at cultivation west of the Mississippi basin until the aid of irrigation was invoked. The response to the application of water was immediate, and millions of acres are now under intense cultivation in the dry belt, and supporting a population far outnumbering that of Australia.

These are the words in which an American writer graphically describes the wonderful work that has been done on lands that bear a striking resemblance to those of Western Queensland both in regard to climate and soil:

The actual amount of land that may be reclaimed and cultivated in the semi-arid region furnishes no measure of the value of irrigation in this vast district. By enabling thousands to engage in farming, irrigation has made it possible to use the surrounding plains as the pasture for great numbers of beef cattle. In many instances small herds are owned by the farmers themselves, but to a large extent their crops are bought by those whose sole business is cattle-raising. Thus all the resources of the region are brought into use, and a wonderful prosperity has followed as the logical result.

From Canada to Mexico the revolution of the Great Plain is now in full tide. It is the most democratic page in the history of American irrigation. It has saved an enormous district from lapsing into a condition of semi-barbarism. It has not only made human life secure, but revolutionised the industrial and social economy of the locality.

To a considerable extent it has replaced the quarter-lot with the small farm, and the single crop with diversified cultivation. It has transformed the speculative instincts of the people into a spirit of sober industrialism. It has raised the standard of living and improved the character of the homes. It has planted the rose bush and the pansy where only the sunflower cast its shadow, and it has twined the ivy and the honeysuckle over doors which formerly knew not the touch of beauty. It has made neighbours and society where once there were loneliness and heart-hunger. It has broken the chains of hopeless mortgages and crowned industry with independence.

The history of irrigation in the United States reads like a romance. Competent authorities have expressed the opinion that truly scientific farming is only possible where irrigation takes the place of rain, and where the elements of fertility are retained in the soil. American experience supports this view. Farms of from ten to forty acres support whole families in comfort, if not in affluence, and one acre yields as much as five of the best land in the rainfall belt. Whether land is used for mixed
farming or crop cultivation, the best results are achieved when moisture can be applied or withheld according to the needs of the crop. Without irrigation, crops may be more certain in the coastal belt and on the intermediate tableland, but with irrigation the advantage will undoubtedly lie with our Western lands. A downpour may do irreparable harm to a ripening crop or at harvest time, and to that danger the plain lands of the interior are less liable than those in the region of heavier rainfall.

In some parts of Queensland, principally near the coast, irrigation has already attained some prominence. In 1907 water was applied artificially to 9,612 acres. Of this area, 4,492 acres were in the Burdekin Delta, the water being drawn from the Burdekin, from lagoons, and from wells. The rainfall is comparatively light, and the marked increase in the cane crop on the irrigated lands is apparent to the most casual observer. In the Bundaberg district 2,350 acres were irrigated from the Burnett River and from wells; the vegetable and fruit growers of Bowen irrigated 356 acres; and water was applied to 482 acres in the neighbourhood of Rockhampton. Artesian water was supplied to 100 acres at Barcaldine and 420 acres at Hungerford far out on the New South Wales border.

In the Western States of America, where water is measured out with mathematical accuracy and applied with clockwork regularity, agriculture has been raised almost to the rank of an exact science. The soil of Western Queensland is quite equal to that of the States in fertility, and similar methods should here produce similar results. When even the sterile Sahara is gradually disappearing before the irrigation works of French engineers, there is no need to despond regarding the future of the very driest parts of Queensland.

In Egypt and Spain and in several of the American States, the water for irrigation is obtained from perennial streams drawing their supplies from distant snow-clad mountains. Kansas differs in this respect from other States. The description of the rivers of Western Kansas by an American humorist might have been penned with equal appositeness of the rivers of Western Queensland: “They are a mile wide, and an inch thick; they have a large circulation, but very little influence.” Fortunately for Kansas, water is everywhere procurable by sinking shallow wells. In Dakota and Texas, thousands of millions of gallons are poured on to the land daily from thousands of artesian wells. Though lofty mountain chains are lacking, with summits high above the line of perpetual snow and giving birth to rivers rivalling Nile and Mississippi in volume, both of these latter sources of supply are available in Queensland. East and west of the Great Divide, abundance of water has been obtained from wells. Our western rivers may flow intermittently on the surface, but sub-artesian water is plentiful in many localities, and the great artesian basin, with its area of no less than 372,000 square miles, coincides generally with that part of the State which has a rainfall of 20 inches or less, a wise Providence having apparently created this huge subterranean reservoir to guard against excessive evaporation and to compensate for the light rains.

There is still another supply open. Allowing for a very large percentage of the water that finds its way into the watercourses of the West sinking into the earth or being lost through evaporation, a tremendous quantity that now runs to waste could be conserved by works such as the Government of New South Wales are constructing in the Murrumbidgee basin. Irrigation on a large scale is beyond the means of individuals—it must be undertaken either by private co-operation or by State enterprise; and preferably the latter. Irrigation and afforestation are both necessary for the successful development of the West. If water can be supplied to settlers at a cost which is not prohibitive, whether it be drawn from storage reservoirs or from subterranean sources, the face of the country will quickly be changed. Instead of a handful of pastoral lessees controlling in some instances areas of hundreds of thousands of acres, a much larger population of grazier farmers will be settled on much smaller holdings, enjoying all the benefits—educational, social, and civic—which result from concentrated settlement.

A product of the land which is intimately connected with settlement, if somewhat outside the scope of this chapter, is timber. The forests of Queensland are very extensive, and contain numerous timbers of great value for building and cabinet-making. Chief among the former are several species of pine, hardwood, beech, and ash. The most beautiful and valuable of the ornamental woods are red cedar, silky oak, bean-tree, and maple. In the earliest settled districts in the South most of these have become comparatively scarce. The timber-getter has been through the scrub and forests, and much that could not be converted into lumber has been destroyed by fire, to make the ground ready for the plough. In North Queensland there are immense quantities available, especially of the ornamental varieties, and a profitable trade has been opened up with the southern part of the State and with Sydney and Melbourne. Formerly the timber became the property of the selector, but now a royalty is charged,
which yields the Crown a considerable revenue, and selection is deferred until the marketable trees have been removed. To prevent the exhaustion of the supplies, and as a preliminary to reafforestation, reserves have been proclaimed in several parts of the State to act as nurseries.

Of the 420,120,000 acres contained in Queensland, at the close of 1908 some 21,500,000 acres—or just one-twentieth of the total area—had been selected as agricultural farms and homesteads; 31,000,000 acres were held as grazing and scrub selections, 56,000,000 acres were under occupation license or depasturing right, and 186,000,000 acres under pastoral lease, the remainder consisting either of reserves, mineral lands, or unoccupied land in remote localities.

From every district where land is open to agricultural selection, however, comes the report that the demand is keen. No sooner is an area thrown open to selection than it is eagerly applied for, and the number of those who signify their desire to become personal residents in order to obtain priority is fast increasing. The Australian States, New Zealand, the British Isles, and Germany are all furnishing their quota of seekers after the cheap and excellent lands Queensland has to offer.

Provision has been made by the Legislature for all kinds of settlement—purely agricultural, mixed farming, and grazing. The areas vary, being governed by the quality of the land, rainfall, the presence or absence of permanent water, and proximity to a market or a railway—in other words, by the amount required to provide the settler with a comfortable income. The State is a generous landlord, and every allowance is made for the difficulties of selectors in the earlier stages of their occupancy. The man who wishes to acquire a freehold has the opportunity of gratifying his desire. The man who objects to that tenure has it in his power to obtain a lease in perpetuity. The best settler being generally the man who intends to earn his living entirely from the soil, and is prepared to reside continuously upon the land, men of that class are very properly accorded priority over those who do not intend to reside in person. Particulars regarding the different tenures and the conditions upon which land may be obtained from the Crown will be found in Appendix E.

The State assists the agriculturist in many ways. The Agricultural College at Gatton is doing valuable service in training young men and in carrying on experimental work. Six State farms, at two of which apprentices are taken, have been established in as many widely separated districts to ascertain by experiment the crops and methods of cultivation most
suited to local conditions, and impart the results of their labours to the neighbouring farmers. Some of these farms have valuable stud flocks and dairy herds, from which settlers can obtain high-class stock. At Cairns tropical products are being tested and propagated at a State nursery. Useful educational work is also being done at the Sugar Experiment Station at Mackay. These institutions are under the direct supervision of the Department of Agriculture, which also employs experts in dairying, fruit culture, and tobacco growing and curing. A botanist, an entomologist, and an agricultural chemist are highly necessary and valuable members of the departmental staff, and much useful information is disseminated through the medium of the "Agricultural Journal," published by the Department.

In addition to giving instruction, the Government have built sheds in the principal farming centres on the Darling Downs for the storage of wheat and other grain until the farmers can dispose of their crops to advantage. Cheap money is supplied through the medium of the Agricultural Bank. There are trust funds from which advances are made to those who desire to build co-operative flour or sugar mills, butter and cheese factories, or meat-preserving works. Railways have been constructed in the older farming districts, produce is carried at moderate rates, and subsidies are given to steamship companies for the carriage of produce to oversea markets.

All this has been done for the man already on the land. Much is likewise being done to help the man who wishes to become a settler. Railways are being built into districts in which the Crown owns large areas fit for close settlement. In other localities roads are made, land is cleared, and wells and bores are sunk. Money is advanced on liberal terms and at a low rate of interest by the Agricultural Bank for the making of improvements and the purchase of stock, implements, and machinery. Land is cheap, and special concessions are given by the Railway Department to new settlers when taking up their land. The annual rent forms an instalment of the purchase money, and payments may be deferred during the initial years of occupancy, when the selector is under heavy expense and is getting little or no return from his land.

North and south along the coast, and west to the setting sun, long stretches of thick wood or grassy plain present themselves to the eye, solitary as in the dawn of creation, only awaiting the advent of the settler to be transformed into a scene of bustling activity.

Endowed with a sunny and salubrious climate, a fruitful soil, an
immense territory, Queensland has room for many millions of people; but those people must be of European birth or descent. For many years the settled policy of the country in regard to immigration was conservative. Now, however, all political parties are agreed upon the need for a larger population—but primarily an agrarian population. The great obstacles to immigration from Europe on any considerable scale are distance and expense. America is distant but a few days' sail, and the cost of a passage is correspondingly low. To place Queensland on an equally favourable footing, the Government have arranged with the British-India Steam Navigation Company to bring adult males from the United Kingdom to the State upon payment by the immigrants of £4 each. The rate for adult females is £2 per head, and £8 for males and females over 40 and under 55 years of age. Free passages may be granted to agricultural labourers introduced under contract if the employer pays a fee of £5 and guarantees a year's employment at approved wages. The balance of the passage-money in every case is paid by the State. Female domestic servants, and the wives and children of contract or part-paying immigrants, are carried free. Immigrants may select land before leaving the old country, with the option of getting a refund if not satisfied with their choice after their arrival in Queensland. Full particulars of the various forms of immigration will be found in Appendix F.

In 1908 the number of those who came from the British Isles was only 2,584, but the numbers are increasing since the inauguration of the B.I.S.N. service via Torres Strait, 2,737 immigrants having arrived during the first nine months of this year. Hundreds of desirable settlers and their families are coming every year from the Southern States and New Zealand, attracted by the cheaper land and brighter prospects. The stream of newcomers is now but a tiny rivulet; but, when each proclaims to his friends his success in the land of his adoption, that rivulet will swell to a mighty river.

Cheap passages and the cheap land across the Atlantic have till now turned westward the eyes of the millions of Europe anxious to become their own masters and to live a wider, freer life than is possible in their native lands. Queensland is taking steps to bring her attractions more prominently under the notice of the British and European public in order to secure a share of the rural populations of the Old World for herself. She has advantages—natural, material, social, and political—in no way inferior to those presented by other countries. Life and liberty are nowhere more secure. A wide expanse of sea divides us from the nearest foreign Power. Living is cheaper and existence easier than in those lands to which the people of Europe are flocking. The sun is always shining, and winter, instead of being a period of enforced idleness, is a season when labour is greatly in demand. Crop succeeds crop without pause, and seed-time and harvest follow each other in quick procession. Stock feed in the open throughout the year, and winter brings little diminution in the yield of dairy produce.

With free institutions, individual liberty, and great natural resources, Queensland is destined to become the home of a numerous and prosperous people. It is our manifest duty to see that it forms part of a strong, self-reliant, British nation beneath the Southern Cross, linked in the bonds of affection with the Motherland and our brethren across the seas, with arms open in welcome to our kin and colour, but ready to defend ourselves against aggression. In the great work, the men who are subduing the wilderness and converting it into a smiling garden can be relied upon to play their part. Nature is a tender foster-mother; freedom is in the air. Stalwart in frame, courageous in heart, true scions of the race from which they spring, rejoicing in their manhood, grateful for their heritage, the yeomen of Queensland are the pride of their country.

Not without envy Wealth at times must look
On their brown strength who wield the reaping-hook
And scythe, or at the forge-fire shape the plough
Or the steel harness of the steeds of steam;
All who, by skill and patience, anyhow
Make service noble, and the earth redeem
From savageness. By kingly accolade
Than theirs was never worthier knighthood made."