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## THE FRUIT INDUSTRIES IN N.S.W. EXPANSION OR CONTRACTION?

BY

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Can agricultural production in Australia be increased, and what are the "safe" limits to expansion in the various industries under present conditions? These are vital questions which must be answered if long-term planning for war service land settlement is to be successful. To answer them, problems relating to correct land use, potential production from areas already settled and the future capacity of the local and overseas markets have to be investigated and a balance has to be found between the demand for settlement in certain industries and the economic limits to expansion in those industries. Irrigation projects may open up much new country but the potential demand for what it is best suited to produce may not warrant any expansion whatsoever.

It is against a background such as this that the question of the expansion of the fruit industries has been considered in recent months. Planting policy has been the subject of conferences between Commonwealth and State officials and industry representatives, and a survey of the economic prospects for these industries, entitled "Economic Outlook for the Horticultural and Viticultural Industries," has been made by the Commonwealth Bureau of Agricultural Economics. The conclusions reached as a result of these investigations are summarised in a recent decision by the Australian Agricultural Council that a total of 28,750 acres of *new* fruit and vine lands may be planted by ex-servicemen. Examination of the data on which this decision is based may serve as a guide to the desirable level of expansion in the various industries in New South Wales.

The total new plantings approved by the Agricultural Council and the area allotted to New South Wales for new plantings are itemised in Table No. 1.

TABLE NO. 1.

*Horticulture and Viticulture.*

Allocation of New Acreage for War Service Land Settlement.

Industry.	N.S.W.	Australia.
	Acres.	Acres.
Citrus ... ..	2,500	7,500
Wine Grapes ... ..	900	4,800
Peaches ... ..	1,000	3,500
Prunes ... ..	200	450
Plums ... ..	100	450
Apples ... ..	500	3,400
Pears ... ..	100	1,150
Apricots ... ..	250	1,500
Dried Vine Fruit ... ..	1,500	6,000
<b>TOTAL</b> ... ..	<b>7,050</b>	<b>28,750</b>

Preliminary discussions between representatives of the States and the Commonwealth were based on recommendations made by the Commonwealth Bureau of Agricultural Economics. These recommendations, the results of the survey already referred to, were made after all available data relating to production trends and future market capacity had been examined, but the total acreage finally agreed to by the Agricultural Council greatly exceeded that suggested by the Bureau, particularly for peaches, apricots and dried vine fruits. The difference between the Bureau's recommendations and the acreage approved by the Agricultural Council emphasises the difficulty encountered by the various authorities in reconciling "safe" economic limits to expansion with land settlement plans and plans for irrigation works. For the latter schemes to succeed certain minimum plantings of suitable varieties of fruit are necessary. These minimum plantings often greatly exceeded what appeared to be the desirable maximum in the light of market prospects. The acreages recommended by the Bureau are given in Table No. 2.

TABLE NO. 2.

*Horticulture and Viticulture.*

New Acreages Recommended by the Commonwealth Bureau of Agricultural Economics.

Industry.	Column 1 (a)	Column 2 (b).
	Acres.	Acres.
Citrus ... ..	7,000	7,000
Wine Grapes ... ..	2,500	3,500 to 4,500
Peaches ... ..	1,000	1,000
Prunes, Figs, etc. ... ..	500	500
Apples and Pears ... ..	...	2,000 to 3,000 (Pears 500)
Apricots ... ..	...	500
Dried Vine Fruits (principally Gordos).	...	1,000 to 2,000
TOTAL ...	11,000	15,000 to 18,500

(a) Prepared on the assumption that the level of exports will not vary greatly in future; (b) prepared on the basis of a more liberal view of future overseas markets.

It is not claimed that the area of new plantings recommended by the Bureau represents the final limit to economic expansion in the industries concerned. In many instances the data available on production trends were not complete and the conclusions drawn from them may be subject to modification when the results of field surveys, now being made or planned, are available. Estimates of future consumption are also liable to considerable revision when the pattern of post-war international trading relations becomes clear.

### THE BUREAU'S REPORT.

Space considerations preclude a complete digest of the report made by the Commonwealth Bureau of Agricultural Economics but the following paragraphs will indicate the basis on which the investigation was carried out.

#### Production.

In arriving at an estimate of future production from existing areas in each industry "past trends in total production, yields per acre and per tree, and improvements in productive efficiency" were all considered. It was "assumed that horticultural practice in Australia will continue to improve, that existing areas will increase in efficiency, and that the level of production from existing areas will tend to increase, so meeting some of the expanded demand without recourse to new settlement."

#### Consumption.

(a) *Local Market.*—The year 1956 was taken as the basic date for estimates of the level of local consumption and the following assumptions were made in regard to population growth and consumption per head:—

- (1) "Population will have increased by one million, and demand will have expanded accordingly by 14 per cent. over the immediate pre-war level."
- (2) "There will be an overall increase in consumption per head of 5 per cent. for all fruits except dried vine fruits, prunes and citrus."
- (3) "There will be an increase in consumption per head of 16 per cent., 20 per cent. and 30 per cent., respectively, for dried vine fruits, prunes and citrus."

(b) *Export Markets.*—Two estimates of the capacity of future overseas markets were made. The first was based on a conservative view of the extent of improvements likely in standards of living and employment in countries which imported Australian fruits in pre-war years; in countries which competed with Australia for these markets; and in the state of international trade generally. On this view it was concluded that, save in the case of fresh pear exports to the United Kingdom and citrus exports to New Zealand, little or no variation in the level of fruit exports is likely in the future. A more liberal view of these factors was taken in compiling the second estimate. From this estimate it was concluded that some improvement could be expected in the pre-war European market and that the United States, by absorbing more of its production at home, would not compete quite so strongly for that market as formerly, despite increasing production resulting from the expansion of irrigation projects. The difference in these two estimates of overseas demand for Australian fruits is reflected in the variations between the acreages recommended by the Bureau—the differences between Columns 1 and 2 of Table No. 2.

**New Plantings.**

Figures indicating the desirable level of new plantings in each industry were obtained by subtracting estimates of future production from areas already planted (including areas planted as replacements) from estimates of the future demand for each product. The difference, if any, converted to an acreage basis, was regarded as the safe limit to expansion for each type of fruit. In making these calculations allowance was made for increased yields from new areas, compared with the average yield from existing areas.



**Preparing Land for New Citrus Plantings—Gosford, N.S.W.**

[Photo by courtesy of the *S. M. Herald*.]

It should be emphasised that estimates of the expansion of home and overseas markets are subject to considerable modification. Home market estimates are based on assumptions regarding an increase in population, much of which must come from immigration, and improvements in the Australian standard of living resulting from the execution of plans for high and stable levels of employment, increased standards of nutrition and a possible widening of the basic wage regimen to include a greater consumption of fruit and vegetables. Estimates of export markets depend in turn on an assumption that overseas living standards will not improve and an assumption that some improvement in them is possible.

Figures summarising the calculations made by the Bureau in assessing future production and consumption levels are given in Tables 3 to 9. The final result in each case is based on the assumption that little or no variation may be anticipated in the future level of exports.

**The Australian Agricultural Council Decision.**

The wide divergence (10,250 acres) between the maximum area of new plantings recommended by the Commonwealth Bureau of Agricultural Economics and the area finally agreed to by the Agricultural Council arose because the individual States had certain minimum requirements which they felt had to be met if their proposals for war service land settlement were to be carried out. Proposals for the expansion of the dried vine fruits industry illustrate the problems which the various authorities faced in attempting to reconcile the areas recommended with the minimum requirements of the States.

For this industry the Bureau recommended that, on the most liberal view, the maximum area of new plantings should not exceed 2,000 acres, while the area finally agreed to by the Agricultural Council was 6,000 acres. In pressing for this increase of 4,000 acres the various States did not disregard the economic implications of such expansion and the probable effects of any modification of Imperial Preference on this industry, but they also had to



**A Pome Fruit Orchard—Ealrow District.**

recognise that the development of irrigation areas, particularly with regard to correct land use, would be endangered if plantings of varieties best suited for these lands were restricted and less suitable means had to be found for utilising the excess land made available by new irrigation projects. South Australia, in particular, was faced with the problem of reconciling a heavy demand for soldier settlement with the fact that almost the only avenue for such settlement in that State is in irrigated areas. The States chiefly concerned, New South Wales, Victoria and South Australia, acknowledged the dangers of undue expansion but the opinion was held that, if Imperial Preference is maintained, new plantings above the recommended "safe" level will not unduly embarrass future marketing. However, if Imperial Preference is modified the industry is likely to suffer severe losses, unless increased yields per acre reduce costs sufficiently to compensate

growers for the loss of the protection they now enjoy. There is evidence of a reduction in production costs in recent years, but it is doubtful if the reduction is great enough to offset any fall in the value of exports.

Similar problems were encountered when considering the extension of peach plantings. The maximum new acreage recommended by the Bureau was 1,000 acres, while the area approved by the Agricultural Council was 3,500 acres. Victoria considered that a minimum area of 2,000 acres of canning peaches was required for the adequate settlement of irrigation lands at Cobram; N.S.W. required 1,000 acres for the extension of canning peach production on the Murrumbidgee Irrigation Area, some expansion of fresh fruit production and some plantings for drying purposes on the Coomealla Extension; and South Australia needed 500 acres for new plantings on the Loxton Irrigation Area.

The problem facing the agricultural authorities then is one of finding an adequate balance between market prospects and the best development of lands which are to be settled mainly by ex-servicemen. If too great an expansion is encouraged a very real danger of market saturation at home and abroad exists, while if unsatisfactory use is made of lands developed by irrigation projects the results will be disappointing. Resolution of this problem, in the existing circumstances, calls for judgment of a high order. Perhaps the only satisfactory solution lies in the development of higher living standards in Australia and in the countries offering potential markets for Australian products, but such a solution is largely outside the province of the agricultural administrator.

#### **New Plantings in N.S.W.**

It is again emphasised that the areas agreed to by the Agricultural Council are for new plantings only. Plantings made to replace existing areas, or areas which went out of production during the war, are additional to the areas allotted to N.S.W. The total new and replacement plantings which, in the light of existing prospects and the demand for settlement, it is considered may be safely made in N.S.W. are discussed in the following paragraphs.

(a) *Citrus*.—New plantings of citrus approved by the Agricultural Council agree with the maximum area recommended by the Commonwealth Bureau of Agricultural Economics. N.S.W. has been allotted 2,500 acres and it is proposed that the major portion of this area will be planted on irrigation lands.

(b) *Wine Grapes*.—Present indications suggest that about 1,500 acres of wine grapes will be planted by private growers in this State; about 1,000 acres being replacements of existing areas and 500 acres new plantings. Nine hundred acres have been approved for planting by ex-servicemen, but if any additional plantings are made by private growers this proposal may have to be reviewed.

(c) *Peaches*.—New plantings of 1,000 acres have been approved for N.S.W. This will be utilised largely for the expansion of canning varieties in the Murrumbidgee Irrigation Area, but some increased plantings for the fresh fruit trade are anticipated and

some plantings are required on the Coomealla Extension for drying purposes. The necessity of harvesting the two main varieties of canning peaches now being produced from existing areas (Phillips and Golden Queen) in mid-season is a serious disadvantage to the canneries. Efforts are being made to evolve early and late maturing varieties and, if these are successful, the new plantings which have been approved may materially aid efficient canning organisation, with consequent reduction of processing costs.

(d) *Prunes*.—New plantings can be carried out in the Young district, in the Murrumbidgee Irrigation Area, and on the Murray. It is not felt that the increased acreage allotted to this State (200 acres) will greatly embarrass marketing as the demand for dried prunes is increasing.



An Orchard Scene—N.S.W.

(e) *Plums*.—The area for new plantings allotted to N.S.W. (100 acres) will be planted with varieties suitable for the fresh fruit trade and for jam making.

(f) *Apples*.—The area under apples in N.S.W. has declined by about 4,000 acres in the last five years. Replacement of this decline added to the area of new plantings allotted to this State (500 acres) will permit a total planting of 4,500 acres. Two proposals for soldier settlement are under consideration—Batlow, 2,000 acres, and Armidale, 700 acres. The balance, 1,800 acres, may be taken up by actual replacements, or by additional new plantings outside the War Service schemes, but it is not considered that new and replacement plantings from all sources will greatly exceed 4,000 acres in the next five years.

(g) *Pears*.—The area under pears in this State has declined by about 600 acres during the past five years. Replacement of this decline will, together with the 100 acres of new plantings approved by the Agricultural Council, permit total new plantings of 700 acres. Williams pears have a short storage life and the marketing



period for this variety is necessarily restricted. To overcome this disadvantage it is proposed to plant the major portion of the 700 acres with varieties other than Williams, though some will be required on the Murrumbidgee Irrigation Area for canning and a small acreage will be planted at Coomealla for drying purposes. Soldier settlement proposals under consideration at Batlow and Armidale will require 500 acres and 75 acres respectively.

(h) *Apricots*.—The yield of this fruit from existing areas has not been adequately reflected in production statistics in the past because, in some years, much of the product was not harvested. It is felt that the market prospects for the industry (fresh fruit trade, canning, drying and jam making) are favourable but, as increased production is possible from existing areas, no replacement of declining areas is required at present. The area of new plantings allotted to N.S.W. (250 acres) is needed to increase the acreage under apricots in the Murrumbidgee Irrigation Area and at the Coomealla Extension.

(i) *Dried Vine Fruits*.—The position in relation to new plantings of dried vine fruits and the expansion of irrigation schemes has already been discussed. It is proposed that the whole of the 1,500 acres allotted to N.S.W. for this purpose will be used for the development of irrigation areas under soldier settlement schemes.

(j) *Bananas*.—The economic outlook for the banana industry was not investigated by the Commonwealth Bureau of Agricultural Economics, but matters affecting the future of the industry were discussed at a recent conference attended by representatives of the Commonwealth, N.S.W. and Queensland Governments and representatives of the tropical fruit industries. After examination of data relating to production trends within the industry and potential Australian consumption, Conference agreed that the potential market for bananas in Australia will be adequately supplied by plantings already made and arranged, and it expressed the opinion that until some improvement in marketing and distribution could be effected further plantings by civilians or ex-servicemen would not be justified. This opinion is supported by a comparison of estimates of Australian pre-war consumption and the expected production from existing areas in 1946-47. Production is expected to increase considerably after the 1946-47 season.

The figures are as follow:—

Expected production, 1946-47—2,881,000 to 3,292,000 bushels.

Average pre-war consumption—2,563,000 bushels.

Possible surplus—318,000 to 729,000 bushels.

Australian consumption has increased in recent years but production appears to be increasing at a faster rate.

### **War Service Land Settlement and Other Plantings.**

The maximum areas recommended by the Commonwealth Bureau of Agricultural Economics covered new plantings from all sources, whilst the areas approved by the Australian Agricultural Council are intended for war service land settlement only. It is apparent, therefore, that production from new plantings made by private growers may seriously embarrass the stability of soldier

settlement schemes by overloading the home and export markets. At the present time, apart from control of the use of irrigation waters, no control of private plantings is contemplated. However, warnings may be issued from time to time regarding the desirability of any further expansion in a particular industry. It is known, for example, that considerable development is at present being carried out in citrus producing areas. In the interests of soldier settlement it will be necessary to carefully watch this expansion and its probable effect upon total production. Expansion of production in any industry may result from new plantings on existing orchards, from increased yields from existing areas, and from new developments outside service schemes. Obviously, decisions regarding the extent of soldier settlement must take such developments into account. If they threaten the stability of the war-service schemes, arrangements may have to be made to control further private plantings or some downward revision may have to be made to the total acreages approved for settlement by ex-servicemen.

In any event up-to-date information regarding market prospects and production trends will be vital if settlement schemes are to be wisely administered. With this object in mind all the States and the Commonwealth authorities have agreed to make arrangements for the preparation of regular statements on the economic outlook for each industry and a running survey of plantings in each industry. Data on production possibilities are to be brought up-to-date by means of field surveys. Some surveys are now in progress and others are being planned. By intelligent use of this information it is hoped that administrators and growers will be advised of current trends early enough for them to take such steps as are necessary to meet changes which, if not anticipated, might either have a distressing effect on the industry concerned, or result in failure to take advantage of opportunities in new markets.

TABLE NO. 3.

*Pome Fruits.*

M. Bushels.

	Apples.	Pears.
Average Pre-war Production ..	10.5	2.4
Australian Consumption* ..	6.0	1.6
Additional Australian Consumption by 1956 (20 per cent.) ..	1.2	0.32
Additional Export Demand by 1956 (Europe) .. ..	0.1	—
Total Extra Demand .. ..	1.3	0.32
Additional Production by 1956 (Existing Areas) .. ..	1.8	0.96
Probable Surplus, 1956 .. ..	0.5	0.64

\* Pre-war Consumption of Pears.

TABLE No. 4.

*Stone Fruits.*

M. Bushels.

	Apricots.	Peaches.
Average Pre-war Production ..	1.05	2.3
Australian Pre-war Consumption*	0.7	1.38
Additional Australian Consumption by 1956 (20 per cent.) ..	0.14	0.28
Additional Production by 1956 ..	0.21	—
Probable Surplus in 1956 ..	0.07	—

Additional Area Required to meet extra demand, 1,400 acres.†

\* Apricots marketed only.

No account taken of wastage of peaches.

† As substantial new plantings of peaches were made during the war years, and as the future of canned peach export appears uncertain, a maximum area of 1,000 acres was recommended for additional plantings.

TABLE No. 5.

*Citrus Fruits.*

M. Bushels.

Average Production 1946-48 .. .. .	6.9
(Field Survey Figures.)	
Australian Normal Consumption .. .. .	6.4
Additional Australian Consumption by 1956 ..	2.5
Additional Export by 1956 (New Zealand) ..	0.2
Total Extra Demand, 1956 .. .. .	2.7
Additional Production by 1956 .. .. .	0.9
Additional Market by 1956 .. .. .	1.8
Average Yield for Citrus—250 bushels per acre.	
Possible Extension in Citrus Plantings to meet Estimated Demand in 1956—7,200 acres.	

TABLE No. 6.

*Dried Vine Fruits.*

Tons.

Average Pre-war Production .. .. .	73,700
Average Pre-war Exports .. .. .	56,900
Average Pre-war Australian Consumption ..	16,800
Additional Australian Consumption by 1956 (32 per cent.) .. .. .	5,370
Additional Production by 1956 (Estimated by Australian Dried Fruits Association) ..	26,300
Probable Surplus in 1956 .. .. .	21,260

TABLE NO. 7.

*Wine Grapes.*

M. Gallons of Wine Produced.

Average Pre-war Wine Production .. ..	17.9
Australian Pre-war Consumption .. ..	10.0
Additional Australian Consumption by 1956 (20 per cent.) .. ..	2.0
Average Irrigated Yield for Wine Grapes (South Australia) —800 galls. per acre.	
Additional Area Required to Meet Increased Demand—2,500 acres.	

TABLE NO. 8.

*Dried Prunes.*

M. lbs.

Average Pre-war Production .. ..	5.65
Average Australian Consumption (for three years ending 1940-41) .. ..	3.72
Additional Australian Consumption by 1956 (34 per cent.) (Amount by which Production could be increased by 1956) .. ..	1.38
Average Yield of Dried Prunes—3,360 lb. per acre.	
Additional Area Required to meet increased demand—410 acres.	

TABLE No. 9

*Dried Figs.*

lbs.

Average Pre-War Production .. ..	132,070
Australian Pre-War Consumption .. ..	562,000
Additional Australian Consumption in 1956 (20%) .. ..	112,400
Additional Australian Consumption of Australian Produced Figs in 1956* .. ..	26,414
Average Yield of Dried Figs—908 lb. per acre.	
Additional Area Required to Meet Increased Demand—30 acres.	

\*Assuming Australian produce will gain same share of new market as she held in pre-war market.