

NOTES ON AFFORESTATION IN PORTUGAL.

by D.W.R. Stewart

In view of the current Australian interest in tree breeding from the Leiria strain of *Pinus pinaster*, the following notes may be of interest: -

During last century Portugal commenced the afforestation of large areas of waste land comprised mainly of: -

- a) Coastal sand dune areas.
- b) Seriously degraded and eroded, over cleared and over grassed upland country.

In 1922, a prominent Swiss Forester, H. Knuckel was impressed with the extent of the work when he visited Portugal. Twenty five years later, after revisiting Portugal in 1947, he was still more impressed and wrote a glowing account of his visit from which the following information is extracted: -

In 60 years from 1874 to 1943 Portugal increased its forested area from 7.2% to 28.4% of the land surface and planned to reach 38.6% by 1970.

	<u>Acres.</u>
1. Total land area (Continental Portugal) 34,207 square miles, i.e.	21,892,280
2. Area forested in 1874 - 7.2%	1,576,244
3. Area forested in 1934 - 28.4%	6,217,407
4. Increase in forested area in 60 years, (i.e., in 60 years Portugal planted a greater area than the total area of State Forests in Western Australia).	4,641,163
5. The average area per year planted over 60 years	77,358
6. Planned objective by 1970 - 38.6% (i.e. an average per year 1934 - 1970 - for 36 years)	8,012,574 49,866

In 1938, a law provided for the restocking of waste land north of the River Tagus within the ensuing 30 years (i.e. by 1968) of 430,000 hectares,  
i.e. 1,062,100

This would require an average planting per year of 35,437

The main species used was *Pinus pinaster*, and other important species were *Pinus pinea*, *Eucalyptus globulus*, Cork Oak and Olives.

Further figures on Portugal's mammoth afforestation effort are provided by the Food and Agriculture Organisation of the United Nations in its publication 'World Forest Inventory' as under: -

1954 Statement.

The increase in forest area in the 5 years, 1947-1952,  
was 42,000 hectares, i.e.

Acres.  
103,740

That is an annual average of 20,748 acres.

The planned increase for the ensuing 5 years, 1953-1957  
was 40,000 hectares, i.e.  
or an average per year of

98,800  
19,760

1959 Statement.

The actual increase in the 5 years 1953 to 1957 was far  
in excess of the above figures, being 138,000 hectares, i.e.  
or an average of 68,000 acres per year.

340,000

The proposed increase for the 5 years 1958 to 1962  
inclusive was 160,000 hectares, i.e.  
or an average per year of

395,200  
79,040

Because of a poor seed crop, the estimated deficit of *P. pinaster* seed  
for Portugal's requirements for 1964 was 550 tons.

No doubt we would consider much of the forest created above to be of  
low grade, i.e. some Pine forests, Cork Oak, Live Oak, Olive groves etc., but  
nevertheless, the magnitude of the effort is most impressive.