

Tung (*Aleurites Fordii* Hemsl.; *Aleurites montana*)

French: Tung; Spanish: Tung; German: Tung

Crop data

Perennial.

Harvested part: fruits (which contain heavy-shelled seeds from which the kernels are extracted; it is from these kernels that the oil is obtained).

Sown late spring (direct seeding/transplanting).

Flowers early to mid-April 2-3 years after transplanting.

Harvested late October to early November.

Plant density: *A. Fordii*, traditional 1 125-1 200/ha, intensive 1 500-1 800/ha. *A. montana*, traditional 540-675/ha, intensive 750-900 ha.

Preferably grown at temperatures of 16-22 °C, falling in winter to 6-9 °C (minimum -8 °C), with an annual precipitation of 750-1 200 mm. Main commercial production in China is at 400-900 m (or even up to 1 200 m) above sea-level.

Prefers light to medium soils with pH 5.2-5.6 or up to 6.5. Liable to suffer from leaf roll and leaf scorch where soil pH is around 7.0-8.0.

Analytical data

Part	%					
	Moisture	Crude protein	Crude fat	Carbo-hydrate	Crude fibre	Ash
Shells	14.4	2.5	0.04	27.6	50.6	4.8
Kernels	4.0	16.6	57.5	12.6	2.7	3.6
Tung seed cake	9.8	46.2	6.5	29.5	3.6	4.4

Plant analysis data - Macronutrients			
Part	% of dry matter		
	N	P	K
Leaf	1.5	0.6	1.0
New branch	1.0	0.4	0.65
Stem	0.75	0.2	1.5
Shells	1.0	0.8	7.0
Tung seed cake	2.1	1.3	0.5

Fertilizer recommendations

Available organic materials such as pig manure, night soil, rapeseed cake and plant ash should be applied in February or March as a basal dressing before transplanting.

Mineral NPK fertilizers should be applied as a basal dressing, well mixed with the organic materials, followed by two fertilizer topdressings annually thereafter in April and September as indicated below:

For topdressing in next year after transplanting: 80 kg/ha N, 100 kg/ha K₂O.

For topdressing 3-4 years after transplanting: 60 kg/ha N, 60 kg/ha P₂O₅, 60 kg/ha K₂O.

For topdressing 5-6 years after transplanting: 100 kg/ha N, 60 kg/ha P₂O₅, 120 kg/ha K₂O.

Present fertilizer practices

China, Hunan Province: For A. Fordii with an expected yield of 30-40 t/ha, basal application of 30 t/ha organic manure with mineral fertilizer containing 80 kg/ha N, 50 kg/ha P₂O₅, 80 kg/ha K₂O. Topdressings of 50 kg/ha N in May and 50 kg/ha in September.

China, Szechuan Province: For traditional practices on medium red soil, basal application of 30 t/ha organic manure with mineral fertilizer containing 60 kg/ha N, 45 kg/ha P₂O₅, 90 kg/ha K₂O. Topdressings in April and September each year of 7.5 t/ha green manure and plant ash and nitrogen fertilizer containing 60 kg/ha N.

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