

FACT SHEET:

PEANUT - *Arachis hypogaea*

Legalega Research Station
Horticulture Unit



Peanut, also known as groundnut is grown for its edible seeds. It is a good source of vitamins, dietary fibre, oil and proteins and are mostly sold as boiled or roasted for its unique flavour. Peanut adds nitrogen to the soil by fixing atmospheric nitrogen and enriching the soil.

RECOMMENDED VARIETIES

Local Spanish

MATURITY

Local Spanish - 100 -115 days

NUTRITIONAL FACTS:

Koronivia Research Station Chemistry Laboratory

Nitrogen %	3.11
Calcium%	0.1
Magnesium%	0.3
Sodium %	<0.01%
Iron (mg/kg)	32.0
Zinc (mg/kg)	42.3
Copper (mg/kg)	11.4
Moisture %	7.8
Crude Ash %	3.3
Phosphorus %	0.5
Potassium %	1.0
Crude protein%	30.1
Energy MJ/kg	27.2

PLANTING TIME

Peanuts can be planted from February to October. Planting during wetter months (Nov-Jan) will result in heavy vegetation, late flowering and reduced yields.

PLANTING DENSITY

Fertile soils - 65cm between rows and 20cm within rows. (mechanised)

Poor soils - 50-60cm between rows and 10cm -20cm within rows. (manual)

Direct sowing in rows. Place one or two seed 10 cm apart in rows and cover the seeds lightly with soil.

WEED CONTROL

Hoeing or mechanical inter row cultivation can be done as and when required.

PESTS CONTROL

For control of Cut worms

Apply *Prevathon* at the rate of 10-15ml to 10 Litre of water. Apply *Bifenthrin* at the rate of 15-20ml to 16 Litre of water. Apply *Multiguard* at the rate of 16ml to 16 Litre of water.

DISEASE CONTROL

Peanut leaf rust, basal rot and peanut leaf spot are three common diseases found in peanut. Spraying fungicides like *Kocide* Or *Mancozeb* at 2 gram in 1 litre of water at early stage of crop (from flowering at 2 weeks interval).

Crop rotation is also recommended as this reduces the resistance build up.

FERTILIZER REQUIREMENT

Ammonium Sulphate - 110kg/ha, Single super-phosphate - 400kg/ ha and Muriate of Potash - 100kg/ha or A mixture of Blend A & B at 200kg/ha of each blend applied as basal. (Lower rates on

more fertile soil depending of soil analysis results).

Soil analysis should be done before fertilizer or lime application.

HARVESTING

Harvest 100 - 115 days from planting.

STORAGE

Harvesting is usually done by pulling up of plants. Plucking of peanuts is done easily soon after harvesting. It is further sun dried and winnowed before bagged for storage.

Seed Rate (unshelled), Expected Yield (t/ha) and Gross Margin

Variety	Seed Rate kg/ ha	Seed rate 1/4 acre	Dry seed yield t/ha (unshelled)	Gross Margin (1.5t/ Ha @ \$12.00kg dried)
Local Spanish	126kg Unshelled	12.75 kg Unshelled	1.5 to 2.0 tonnes	1.5t/ha @\$12.00 farm gate price Income- \$16,200 Expenditure- \$8,254 GM- \$7,946

PEANUT IN ORGANIC AGRICULTURE

Peanut can be used in organic agriculture as rotational, for intercropping or for green manuring and with good agronomic practices it can vastly lead to an increase in yield. It provides food security with least negative impacts on the environment fetching premium price in the market. Peanut thrives well under drought and marginal conditions adding organic matter to improve soil health providing more nutrient availability.



GROSS MARGIN FOR PEANUT					
1.0 ASSUMPTIONS					
Spacing : 0.65m*0.2m		planting density: 77,000			
Yield range (1500kg- 2000kg green)		Average market price (\$12/kg)			
MoAW seed price: \$3.96/kg					
2.0 Income		Quantity	Unit	Unit Price	Total
Estimated (Av) Yield		1500kg (1500-2000kg)	kg		
Farm gate (Av) price (purchasing at \$12/kg farm gate price)		\$12.00/ kg (range \$12.00-\$15.00)	kg	\$12.00	\$18,000.00
Rejected (unfilled- pops)		10%	%		\$1,800.00
Marketable yield		90%	%		\$16,200.00
Total Income					\$16,200.00
3.0 Direct Costs					
3.1. Land preparation					
Ploughing (twice each at \$320.00/ha)	2	ha	320		640.00
Harrowing (twice each at \$220.00/ha)	2	ha	220		440.00
Rotovating @ \$220/ha	1	ha	220		220.00
Seed drilling @ \$220/ha	1	ha	220		220.00
Inter-row cultivation (once at \$220.00/ha)	1	ha	220		220.00
3.2. Agro Inputs					
126.0 kg pure seed (Source LRS, rate \$3.96per Kg)	12	kg	\$3.96		498.96
8 bags Blended fertilizer 50kg bag (basal application)	8 bags* 50kg	kg	\$115		920
1 Kg Sodium Molybdate (recommended for red soils)	1	kg	\$94.00		94
8 Litres insecticide (insecticide (Multi guard- abamectin) 2L/ha X 4 sprays @\$50/L)	8	litres	\$50.00		400.00
Total variable costs					2754.00
4.0. Labour Current farm labour rate of \$25.00 per day					
Seed sowing	1 day with 7 man	days	25		175
fertilizing and thinning	1 day with 7 man	days	25		175
Weed control	8 days with 6 man	days	25		1200
Insecticide application	1 day with 2 man (4 insecticide application)	days	25		200
Harvesting	10 days with 6 man	days	25		1500
Threshing & Drying	2 days with 6 man	days	25		300
Seed Selection, Grading & Packaging	5 days with 6 man	days	25		750
Total labour costs @ \$25/day		166			\$4,300.00
5.0. Other Expenses					
Pre and post-cultivation expenses (administrative, transport)					\$1,200.00
Total expenditure					\$8,254.00
3.0. Gross Margin/ha					\$7,946.00
Return per labour inputs					\$47.87
6.0 Gross Margins Sensitivity Analysis					
Peanut - yield (kg/ha)	Marketable yield 90%	Price (\$/kg)			
		11	12	13	14
1. 1000	900	\$1,646	\$2,546.00	\$3,446.00	\$4,346.00
2. 1500	1350	\$6,596	\$7,946.00	\$9,296.00	\$10,646.00
3. 2000	1800	\$11,546	\$13,346.00	\$15,146.00	\$16,946.00

