COST AND RETURN ANALYSIS

ITEMS	QNTY	UNIT	RATE	AMT.
A. Labor				
Mowing	4	h	187.5	750
Plowing (2x)	8	h	187.5	1,500
Compost Application	4	MD	250	1,000
Harrowing (2x)	8	h	187.5	1,500
Rotavation	8	h	187.5	1,500
Furrowing	2	MD	500	1,000
Planting / Basal Fertilization (Organic Fertilizer)	8	MD	250	2,000
Thinning	2	MD	250	500
Cultivation (off-baring and hilling up)	4	MD	500	2,000
Irrigation (2MD-12x)	24	MD	250	6,000
Spraying (botanical pesticides and natural concoctions)	8	MD	250	2,000
Weeding (30MD-2x)	60	MD	250	15,000
Rouguing (2x)	4	MD	250	1,000
Treselling / posting (wiring and strawing)	60	MD	250	15,000
Vine training (102x)	20	MD	250	5,000
Harvesting/Hauling	60	MD	250	15,000
Seed Extraction / cleaning / drying	50	MD	250	12,500
Seed Sorting	12	MD	250	3,000
Seed Packaging	2	MD	250	500
B. Supplies and Materials				
Seeds	12	kg	420	5,040
Compost	60	bag	150	9,000
Organic foliar Fertilizer	5	li	50	1,000
Trellising Materials				
Bamboo Poles	3000	pc	10	15,000
G.I. Wire #16	300	kg	75	5,625
Plastic twine	25	roll	80	2,000
Harvesting/Packaging/ Drying Materials				
Sacks	25	pc	10	250
Sacoline	30	m	50	750
Net bag 22 inx30 in	50	pc	50	2,500
Power Cost (Irrigation/ Electricity)				5,000
Contingency Allowance (10%)				13,291.5
TOTAL COST OF PRODUCTION				146,206.5
Gross Income Seed Yield (700kg/ha)				294,000
Net Income				147,793.5
ROI%				101%

Legend: MD=manday, g=grams, kg=kilograms, li=liter, m=meter, pc=piece, h=hour

QR code

Technology developed by:
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Leaflet#_____

Republic of the Philippines
DEPARTMENT OF AGRICULTURE
BUREAU OF PLANT INDUSTRY

ORGANIC POLE SITAO SEED PRODUCTION

INTRO DUCTION

Pole Sitao (Vigna unquiculata subsp. Sesquipedales (L.) Verdc. locally, known as sitaw is the most popularly produced vegetable among edible legumes in the Philippines. It is grown in home gardens, on dikes around paddy fields, under partially shaded areas as a companion crop or commercial crop. It has a good source of protein, vitamin A & C, thiamin, riboflavin, iron, phosphorous potassium, vitamin C, folate, magnesium, and manganese.

ECOLOGICAL REQUIREMENT

Soil and Climate Requirements:
- Suited in warm climate at a temperature range of 20-35°C and soil with pH value of 5.5-6.8.

Varietal Selection:
- The important considerations to look into are adaptability to soil and climate, maturity, yield, disease resistance and insect tolerance and market demand.

CULTURAL MANAGEMENT

Land Preparation
- Plow the field twice and harrow after each plowing. For single row trellis, make furrows one (1) meter apart and 0.75 meter for A-type trellis before planting. Apply 5 tons of organic compost per hectare while preparing the field.

Planting
- Seeding rate requires 10-12kg/ha. Sow 2-3 seeds per hill with a distance of 30 cm between hills after basal application of organic compost for hill method planting. For drill method, seeds are planted at a depth of 2-3 cm at a rate of 15-18 seeds per linear meter with 100 cm spacing between rows

Mulcing:
- The use of rice straw or plastic mulch particularly during dry season helps to suppress weed growth and conserve soil moisture.

Cultivation:
- Off-baring and hilling-up should be done after 14 days from emergence or before the plants start to cling on.

Trellising and Vine Training:
- Provide poles after 14 days from emergence.

Irrigation:
- Application of water during the critical growing period of the crop particularly during dry season is required to increase yield.

Organic Fertilizer:
- Basal applications of organic compost of 2 tons/ ha are needed for vegetable legume crops. Supplementary application of Fermented Plant Juice (FPJ) or Vermicast and goat manure extract should also be applied once a week until to fruiting stage.

Wedding Management:
- Hand weeding should be done as often as necessary even after flowering.

Crop Protection:
- The following measures may be done: crop rotation, Planting of insect repellent crops, Use of botanical pesticides, maintain cleanliness of planting area and use of biological control agent.

COMMON PEST AND THEIR CONTROL

1.Bean fly (Ophiomyia phaseoli)
Control- spray neem seeds extract (50g neem seeds/gal of water), Citronella extract(250g leaves :16 liters knapsack or perla soap mixed in water

2. Aphids (Aphids craccivora)
Control- spray hot pepper extracts (100g macerated hot pepper/16L water) or citronella extract 250gms in perla soap solution. Crop rotation can be done in severe cases.

3. Pod borer (Maruca vitrata)
Control- Grow repellent crops such as marigold, basil, onion and citronella, biological control using Trichogramma spp. parasitoid.

4. Leaf miner (Liriomyza sp.)
Control- Conserve natural enemies like spiders, lacewings and syrphid flies, using yellow trap with oil around planting area and Intercrop with suitable vegetables like eggplant and okra.

5. Leaf hopper (Amrasca biguttula)
Control- Spray with soap solution and plant sacrificial crops like okra.

Aphids ***Pod borer***

Images from online source