



Selecting the Right Pyrethrum Varieties or Clones for Your Area

Introduction

Pyrethrum (*Chrysanthemum cinerariaefolium*) was introduced in Kenya in 1928. The crop comprises of varieties and clones which grow in different agro-ecological zones in Kenya. It does well at high altitudes, ranging from 1500-3000 meters above sea level. Production is favored by cool temperatures and requires a minimum of 750mm of rainfall well spread over the season. Fertile and well drained soils of moderate organic matter are also ideal for vigorous pyrethrum flower production.

The ecological adaptability of the pyrethrum varieties and clones is dependent on the altitudes that are largely categorized into mid altitudes and high altitudes. The mid-altitudes pyrethrum growing zones range is 1500-2200 masl while the high-altitude

zones range is 2200 to 3000 masl. Varietal and clonal characteristics are important in matching varieties and clones to the pyrethrum growing areas. Growing the varieties and clones in unsuitable areas result in sub-optimal production.



NATIONAL AGRICULTURAL VALUE CHAIN DEVELOPMENT PROJECT



Choice of planting material

Pyrethrum is propagated through splitting of mature plants, seed and tissue-culture.

Recommended Commercial Pyrethrum Clones and Varieties

Clones

In Kenya, Pyrethrum clones are classified based on the altitudes they thrive in. This include high altitude, above 1,980 metres and for mid altitude 1700 - 1980 meters above sea level.

High Altitude

Clone	Pyrethrin content	Yield (Kg/Ha/Year)	Altitude
SB/66/107	2.0%	900-1000	≥2200
Ma/70/1013	1.90%	1100-1200	≥ 2200
L/75/487	1.85%	900-1000	□ 2100
Mo/70/1124	1.9%	900-1000	≥ 2200
Mo/74/223	1.95%	900-1000	≥ 2200
L/75/477	2.1%	1000-1100	□2100

Mid Altitude

Clone	Pyrethrin content	Yield(Kg/Ha/year)	Altitude
KS/71/6	1.7%	900-1000	1800-2200
KS/75/336	1.8%	900-1000	1760-2100
KS/75/313	1.6%	1000-1100	1760-2100
KS/70/64	1.9%	1000-1100	1760-2100
Mo/74/443	1.8%	1000-1100	1800-2200
KS/75/4	1.9%	900-1000	1800-2000
Kr/74/122	2.1%	1000-1100	1700
Ma/71/443	1.8%	1000-1100	≤ 1700

Pyrethrum clones are propagated through splits or tissue-culture. A clone is a group of plant population obtained by continuous vegetative propagation of single plant. It is genetically identical to the original mother plant and shows similar growth characteristics.



Pyrethrum clone Ma/70/1013 propagated through splits and tissue culture, Source KALRO Molo and Dr. Lusike



Pyrethrum variety P4 seeds and seedling, Source M. Irene

Varieties

There are seven recommended varieties whose pyrethrum yield ranges from 550 to 1000 kg/ha/year.

Mid Altitude

Variety	Pyrethrin content	Yield (Kg/Ha/Year	Altitude
P4	2.00%	600-800	≥ 2200
K218	2.10%	900-1000	1800-2200
K235	1.90%	600-800	1800-2200

High altitude

Variety	Pyrethrin content	Yield(Kg/Ha/Year	Altitude
P4	2.00%	600-800	≥ 2200
Kent 1	1.84-1.95%	650-700	>2200
Kent 2	1.86-2.16%	550-600	>2200
Kent 3	1.96-2.09%	590-650	>2200
Kent 4	1.89-2.12%	650-700	>2200

Pyrethrum varieties are propagated through sowing seeds. A variety, is a heterogeneous plant population obtained from seed produced through the hybridization of two or more clones through breeding.

Factors to Consider when choosing a planting material

1. Ecological adaptability (Altitude)- Select clones and varieties that are suitable for your area.
2. Yield potential- select high yielding varieties or clones

3. Quality (Pyrethrin content) -. A high percentage of pyrethrin content guarantees more income to the farmer.
4. Disease and Pest tolerance. - Tolerant clones and varieties ensures a reduction in pest control inputs.

Farmers are strongly advised to obtain clean quality pyrethrum planting material from KALRO Molo or any other registered and certified pyrethrum nurseries.



Compile by: Lagat, R. Obanyi J.N, Muriithi I., Pertet E., Thuo M., Kimutai C., Kirigua V. and Lusike W.

Edited by: Nyabundi K.W., Mukundi K.T., Maina P.

Design and Layout: Nogrecia Mnene

For further information, contact:

The Centre Director,
KALRO Molo, Industrial Research Centre,
P.O Box 100-20106 MOLO
Email: kalro.molo@kalro.org
Phone: 0722269057

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