HORTICULTURE NOTE NO. 18

SILVERBEET

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ABSTRACT

The growing of silverbeet, its harvesting, storage and yields are discussed. Control tatics against pests and disease are outlined.

common name: Silver beet or Swiss chard

Botanical name: *Beta vulgaris var. cicla*

WHAT THE PLANT LOOKS LIKE

Silver beet has large crinkled dark green leaves, with white stems.

HOW IT IS USED

Silver beet is a good source of most vitamins and minerals. It is especially rich in Vitamin A and iron, and to a lesser extent, Vitamin C. Silver beet leaves and stems are always cooked, and served as a green vegetable.

WHERE IT GROWS

Silver beet grows best between 18 and 27°C. In the lowlands temperatures are nearest 27°C, therefore silver beet is best grown during the cooler season. In the Highlands it will gorw up to an altitude of 2400. It can be grown all year around.

SOILS AND FERTILIZER

Silver beet is easy to grow. It will grow in many different types of soils, including salty soils. The best pH is between 6 and 7.

Like other leafy vegetables, silver beet requires a lot of nitrogen. If available, compost or animal manure should be dug in 1-2 weeks before planting. On fertile soils this should be adequate.

If commercial fertilizers are used the following rates should give satisfactory results. Before planting incorporate 500 kg/ha 12:12:17 (1 large fish tin per 10m^2). Additional phosphate should be added in soils known to be low in phosphate. This can be supplied as triple super phosphate at the same rate (500 kg/ha). Silver beet will respond well to top dressing with nitrogenous fertilizer (see below).

Varieties

Good varieties which have shiny dark green leaves, include:

Master Green (Yates New Zealand)

Fordhook Master (Yates Australia)

HOW IT IS GROWN

Seed

To plant 0.1 ha with silver beet 350 g seed is required. There are approximately 500 silver beet seeds per 10 g packet.

Sowing

(1) Direct Sowing

Seed can be sown directly in the field and then thinned to the correct spacing after emergence. This method avoids a check to the seedling with transplanting and large areas can be planted quickly if a planter is used.

(2)Transplanting

Alternatively seed can be sown in Jiffy 7's or seed trays. Sow two seeds per hole and thin to one seedling 7-10 days after emergence. Seedlings are ready for transplanting when they are 10 cm tall, about 4 weeks after sowing. Seed sowing, nursery care and transplanting are described in Farming Note No. 10, 'Vegetables'.

Plant spacing

Prepare beds 1.2 to 1.3 m apart before sowing or transplanting. Plant three rows of plants along each bed. Plants should be spaced 25 cm apart in the row.

Irrigation

In dry areas or seasons, the crop should be irrigated every three days for the first two weeks after transplanting. After that irrigation only needs to be applied weekly.

Weeding and topdressing

The crop should be kept free of weeds by hoeing between the plants and between the rows. Plants should be topdressed with 100 kg/ha urea (1 large fish tin per 27 m^2) after thinning, or 4 weeks after transplanting. Topdressing should be repeated monthly as long as the crop continues to bear well.

Time to maturity

After transplanting or thinning the first leaves will be ready for harvest in about 6-8 weeks. After this, new leaves will continue to develop for about 2 months in the lowlands, and for up to 6-12 months in the highlands. A new crop should be sown before the previous crop becomes too old.

PESTS AND DISEASES

Insect pests

Caterpillars occasionally damage silver beet. If they are a problem they can be controlled by spraying with Orthene 75 W.P. (use 10 g in 10 litres of water) as necessary. Do not harvest for 7 days after spraying.

Root Knot Nematodes (Meloidogyne spp)

Root knot nematodes cause swellings on the roots and weaken and eventually kill the plants. If possible practise crop rotation to prevent build up of nematodes. If chemical control is necessary consult your Regional Horticulturist.

Diseases

Leaf spot *(Cercospora beticola)*

The leaves can be affected by a leaf spotting fungus. This is particularly serious in wet weather. Some control can be attained by spraying with dithane (20 g/10 litres). Add a wetting agent and do not harvest for 3 days after spraying.

HARVESTING, STORAGE AND YEILDS

When harvesting, only one or two leaves are removed from each plant. This allows new leaves to develop from the inside. Cut or break the stalk about 5 cm above the ground.

Green leaves do not store well. They should be cooked and eaten within 24 hours of harvesting unless they can be refrigerated. Silver beet will store for a week in a refrigerator. Keep as cold as possible but do not freeze. The leaves will stay fresher if they are sprinkled with water straight after harvest, and kept shaded.

In the highlands twelve beds each 20 metres long (288 m^2) should provide an adequate supply of silver beet for 100 students (say one meal per week) for 6 to 12 months (i.e. 5 kg/m^2/6 months). In the lowlands yields are lower.

FURTHER READING

Farming Note No 10. Vegetables. DAL, Port Moresby, revised 1983.

For further information contact your Regional Horticulturist :

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