

Smallholder Horticulture

in
ZIMBABWE



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WOMEN IN HOME GARDENING

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ABSTRACT

A garden is a place for growing plants. Historically the home garden was meant to improve the nutrition and the quality of life of the family. In most of the developing countries where women are dispossessed, overworked and overlooked they are the primary actors in home gardening. One of the greatest constraints to women's increased productivity is lack of time.

To address a stark picture of insufficient intake of protective food and a high incidence of deficiency diseases, most people should be encouraged to grow their own fruits and vegetables. As women in developing countries are overworked, and have very little control of land under traditional land tenure, well organized home gardening should be encouraged. The type of crop to be grown will depend on locality but indigenous or native fruits and vegetables need scrutiny.

INTRODUCTION

According to Biscrove (1973), a garden is simply an enclosure - girdle and girth (which enclose), garden and yard (which are enclosed space) are all terms derived from the same root. The nature of a garden has changed through the centuries but it is still useful to consider the garden as fundamentally an enclosed space, as a outdoor room or series of rooms. To the horticulturist a garden is a place for growing plants, to the poet it suggests seclusion (screen from view), meditation or perhaps gaiety (bright appearance); to the land space architect it is a defined unit of design with certain aesthetic (philosophy of beauty) and utilitarian function.

Historically the home garden was meant to improve the nutrition and the quality of life of the family. However, there is a limit to the amount of fruit and vegetables that can be produced for consumption. Therefore, the expansion of ornamental gardening has, in recent years, been much more spectacular than fruit and vegetable growing.

WOMEN IN DEVELOPING COUNTRIES

To understand how women can benefit from home gardening, one needs to understand how they spend their time in the villages and towns of the developing world.

According to the results of six major studies on the position of women in the rural areas from villages in Tanzania, Burkina Faso, Bangladesh, Java, Nepal and Zimbabwe there are many differences between different countries and between social classes.

But McCalman (1981) indicates what most rural women could themselves have told the researchers had they only been asked:

- Rural women work long hours. The average woman's working day is between 8 and 13 hours long.
- Rural men work hard but women work harder.
- Women do both "productive" and reproductive work.
- Women bear almost all the burden of "reproductive" work.

Now, if you were working a 13 hour day, seven days a week, 52 weeks a year, and someone arrived at your door with a big horticultural project to provide you with additional work, you might think they had arrived at the wrong address.

Stall (1991) indicated that, in Gambia, women's productive roles are critical in the Gambian agrarian-based economy. Gambian women provide 75% of the domestic food production and produce 90% of swamp and tidal rice, the staple of the Gambian diet. Women are the primary actors in intensive "village gardens". They also provide most of the labour for harvesting and post-harvest processing, recognised as one of the most time consuming and arduous of rural household tasks.

In Zimbabwe, where 70% of farmers are women (Magadzire 1991) most plots are registered under males. Whilst women do more farm work than men, ownership determines the main cropping programme which, in a number of cases, is dictated by the husband. The consequence in most cases is that women resort to scratching round the homesteads where they tend to have authority over their operation (Madodo, 1992). Not surprisingly therefore, Harrison (1979) and Goldey (1987) described women's predicament in developing countries as "dispossessed, overlooked and overworked".

WHY HOME GARDENING

Home gardening holds promise as an ecologically sound land management scheme and as a means of providing for a range of basic human needs: food, fuel, medicines, animal feed and building materials. As women in developing countries are overworked, and have very little control of land under traditional land tenure, the value of well organized home gardening bears scrutiny.

A stark picture of insufficient intake of protective food and a high incidence of deficiency diseases, particularly in children is a common feature in developing countries. In Zimbabwe, 30% of children under five are chronically malnourished (CSO 1989) and malnutrition is one of the biggest killers of children between the age of two to five. This grave situation needs to be vigorously tackled. In fact as soon as under-nourishment is eliminated, malnutrition becomes the major concern. Stimulation of market gardening can improve the availability of fruit and vegetables and help to lower the lack of protective food. However, this offers only a partial solution. The high costs of production and the perishable nature of most fruits and vegetables makes them too expensive for most households. The simple truth is that most people can get enough fruit and vegetables only if they grow their own.

The home gardener does not suffer the marketing problems which are so formidable for large scale commercial growers. The home producer grows what her family prefers to eat.

There is little spoilage due to delay and transportation. If she produces more than her household requires she can easily sell to her neighbours.

Moreover, the profit motive lures home gardeners with the prospect of selling some of the produce. Market gardening evolves out of home gardening.

With the proper set up and maintenance of home gardens women can avoid walking long distances in order to forage from the wild or from distant gardens incurring loss of time and energy. However, setting up and maintaining home gardens is not as easy as it sounds. In order to promote home gardening, the motivation has to come from appreciation of the importance of fruit and vegetables for health. This can only be achieved through education. Schools, health services, extension services and the media should all be involved in the education process. In addition, easier and more successful gardening techniques should be promoted. Verheij (1982) argues that it is no use promoting the use of kei apple or Mauritius thorn as a good hedge unless the interested gardener can get hold of the seed.

WHICH CROPS TO GROW

Marten (1986) indicated that tropical home gardens comprise an assemblage of plants which may include trees, shrubs, and herbaceous plants or vines growing in or adjacent to a homestead. Because of the increasing population pressure on the land, the introduction of new agricultural technologies, new opportunities for agricultural markets, and a growing need for cash earnings to purchase an increasing supply of consumer goods there is a rapid change of home gardening in the tropics. The type of crop to be grown will therefore depend on locality but efforts would be directed to:

Vegetables

Most vegetables have short growing periods and hence provide the family with a better diet and continuous cash flow. Indigenous or native vegetables should be encouraged because of their high nutritive value, their low input requirements for growing, and their high yields and resistance to adverse environmental conditions, pests and diseases.

Survey work by Mashingaidze *et al* (1993) shows that in Zimbabwe, home gardening is an integral part of the farming systems in smallholder agriculture and exotic vegetables (*Brassica spp*, tomatoes, onions, carrots, etc) are the dominant species grown. The report further indicates that important traditional vegetable plants are *Amaranthus hybridus*, *Cleome gynandra*, *Corchorus sp*, *Curcubita maxima* and *Vigna unguiculata*. The latter two are domesticated.

The nutritive value of amaranthus, which is probably the most important leaf vegetable of the lowland tropics (Oomen and Grubben, 1978), is a good example of a traditional vegetable in which essential dietary components are present. As a vegetable it ranks highest in average nutritive value (Yamaguchi, 1978) and, according to Elias (1977), the edible seed (grain) is more nutritious than cereals. As a crop species, Feine *et al* (1979) have described it as the gentle giant of the past and future. The increase in production of indigenous vegetables like amaranthus (which is treated as a weed in most parts of Zimbabwe) would have a great impact in mitigating food shortages and supplementing the diet with protein, calcium, iron, carotene and ascorbic acid, riboflavin, niacin and thiamin. They have a special role to play in supplementing the diet of small children at weaning.

Despite the shining virtues of indigenous vegetables, production of these species and utilization has virtually been neglected. Their use is believed to be declining because of the introduction of exotic types and they are quickly disappearing as ecological destruction continues unabated.

To salvage the situation, there is a need to identify, collect, evaluate and develop production packages of indigenous vegetables for the home gardeners.

Fruits

Fruit production from home gardening in developing countries is most often described as "haphazard". It is certainly not done systematically. If one wants to promote fruits in home gardening, the best system to adopt is that demonstrated by Samson (1980). Assuming that each individual in the family of five members eats approximately 200 g of fresh fruits/day throughout the year, and if 50% of the fruits are edible one will need 2kg/day/family (approximately 730 kg/year). With an average yield of 10 tonnes/ha an area of 730 m² will be enough for the family (Table 1).

Table 1: Fruit trees for a family of five

Fruit	Spacing (m)	Number	Spacing (m ²)
Mango	9 x 9	1	81
Avocado	7 x 7	2	98
Grapefruit	7 x 7	1	49
Lime	7 x 7	1	49
Mandarin	7 x 7	1	49
Sweet Orange	6 x 6	5	180
Soursop	6 x 5	1	30
Guava	6 x 5	1	30
West Indian Cherry	6 x 5	2	60
Papaya	4 x 2.5	4	40
Banana	3 x 2	6	36
Plantain	3 x 2	6	36
Total		31	738

Source: Samson (1986)

All the above could fit in a plot of 25 x 30 m. This system, if adopted, gives room for intercropping. Instead of limiting a field to one species, different fruit species are intercropped on the same piece of land. This simple system allows to share costs in two, three or more crops.

One might also introduce fruits like passion fruit and oyster nuts on hedge rows. These crops need minimum care and can be a good source of vitamin C (passion fruits) and cooking oil (Oyster nuts). Having different types of fruit trees will ensure a reliable source of fruits throughout the year. This is important because the human body cannot store/synthesize vitamin C — we must eat fresh fruits and vegetables everyday.

Wild fruits of Zimbabwe like *Adansonia digitata*, *Annona senegalensis*, *Azanza garckeana*, *Berchemia discolor*, *Flacourtia indica*, *Ficus capensis*, *Parinari*

mauritiana have great potential for domestication. Efforts should be sought to incorporate some of these fruit trees in home gardens.

Ornamentals

Earning a living in ornamental gardening becomes possible only when there is sufficient wealth in society to pay for cut flowers, potted plants, garden plants and landscaping. For women residing in towns, ornamental gardening cannot be overlooked. Improving and promoting production of ornamentals must be integrated into the overall development of the society in question because ornamental gardens and gardening methods indicate areas, and mark the evolution of people.

SUMMARY AND RECOMMENDATIONS

Today home gardening involves a special approach to the production of vegetables, fruits, and flowers for domestic use, market production or amenity purposes. For women to benefit from home gardening, they must develop special skills. These range from the relatively simple ones for example, the level of production of leafy vegetables for family use, to a high level of competence and comprehension when high inputs-high quality crops are required to be grown for internal or external use.

Furthermore, home gardeners should be given local knowledge regarding the types and use of various vegetables and fruits, by widening the choice and improving the distribution and preparation of these home garden products. Groups of women should arrange training courses for home gardeners, both in techniques of production and in nutrition and home economics.

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