



If you do not own a greenhouse your frame, if used to its full capacity, can become virtually a mini-greenhouse, even to the extent that it can be heated in winter and early spring with the aid of under-soil warming cables.

Should you be fortunate enough to possess a greenhouse your frame will be invaluable as a secondary house, not only relieving space congestion but also providing the perfect conditions for hardening-off plants raised in the greenhouse prior to planting them out.

### **SOME BASIC ADVICE**

#### **SITING**

Maximum sun and light are ensured if the frame faces south. This is not essential if it does not fit into a restricted garden layout - indeed some plants do not like full sunlight - but it is better to give the most advantageous siting and provide shading for the subjects which need it rather than permanently deprive all the occupants of light and warmth by thoughtless positioning. Find an open area where shadows from buildings, trees, fences etc. will not fall across for long periods.

#### **THE BED**

How this is tackled will depend upon the uses to which it is to be put. If the intention is to fill the frame with pots, seed boxes and trays a dry, firm base of about 3" of ash or shingle is ideal as it will keep out pests and provide good drainage. If a seed bed is required it should be at least 6"-8" deep made up of well rotted, sieved garden compost or leaf mold, peat or good loam and sand. There is nothing to prevent you making half the frame into a bed and using the other half for standing pots etc.

#### **VENTILATION, PROTECTION & WATERING**

Proper ventilation and regulation of temperature and moisture is of paramount importance. It is all too easy to kill or seriously harm plants by neglecting these vital details.

The amount of air admitted depends upon the nature of the plants and the time of year. Young plants and seedlings which require to make quick growth need a warm, moist atmosphere, seedlings and cuttings which are overwintering require air on all favorable occasions to encourage sturdy growth, while flowers in bloom like a dry atmosphere.

Any plant will suffer from violent temperature changes so on a potentially warm spring day open the lights a little in the morning, increasing the gaps progressively as the sun gains power. During a settled period of warm spring weather they can be removed in the middle of the day and during summer dispensed with altogether, depending upon the crop. To husband the sun's heat during the latter part of a winter or early spring day close the lights as it begins to lose power. When severe frost threatens cover the frame with mats, old overcoats, or other protective material

Plants need most water in spring and summer, so water at least once or even twice daily. Once a week is sufficient for most plants in winter. Summer watering should be done in the morning or evening, but in spring, late autumn and winter mornings only is best. Excessive night time moisture would inevitably cause the fatal condition of 'damping-off'

#### **HYGIENE**

Conditions in a garden frame can encourage the rapid multiplication of pests and disease organisms so an annual clean-up is advised. When empty, wash the whole of the inside of the frame, including lights, with a solution of one tablespoon of Jeyes Fluid per gallon of water (or use Algofen) and allow to dry before using. Ash or shingle flooring can be soaked with the same solution.

If you intend using the same bed for another season it should be sterilised as follows:

For a bed occupying the whole of a 4' x 3' Cold Frame mix five gallons of water with five dessert spoonfuls of Jeyes Fluid (use ½ quantities with the 3' x 2' frame). Dig the bed over, soaking first the trench you make with the solution and then the topsoil as it is thrown over. Close the lights, leave closed for seven days, open up and spike the soil with a fork. On no account use the bed until the compost has attained a daytime temperature of 45°F for at least seven days; so this operation is best carried out in mild weather. Once the soil is clean - keep it clean. Remove all leaves as they yellow on the plants, as if allowed to fall on the soil and rot they encourage slugs and diseases such as botrytis.

### **SOME OF THE USES OF YOUR TWO WESTS COLD FRAME**

Note: The suggested number of plants mentioned in this section refers to the 4' x 3' frame, obviously the 3' x 2' frame will accommodate approx. half these numbers.

### **VEGETABLES**

Let us firstly look at crops, which are grown from seed to maturity in the frame, and the time they are in occupation.

These can include:

Salad Onions	Aug - Apr
Parsley	Aug - Apr
Lettuces	Sept - May
Carrots	Jan - Jun
Radishes	Jan - Apr
Spinach	Jan - Apr
Turnips	Feb - May

Lettuces, mustard and cress, spinach, radishes and turnips, all to be kept moist and shaded during hot sun (May - Sept).

Next we come to plants raised partly or entirely in frames and planted out when large enough. These can include:

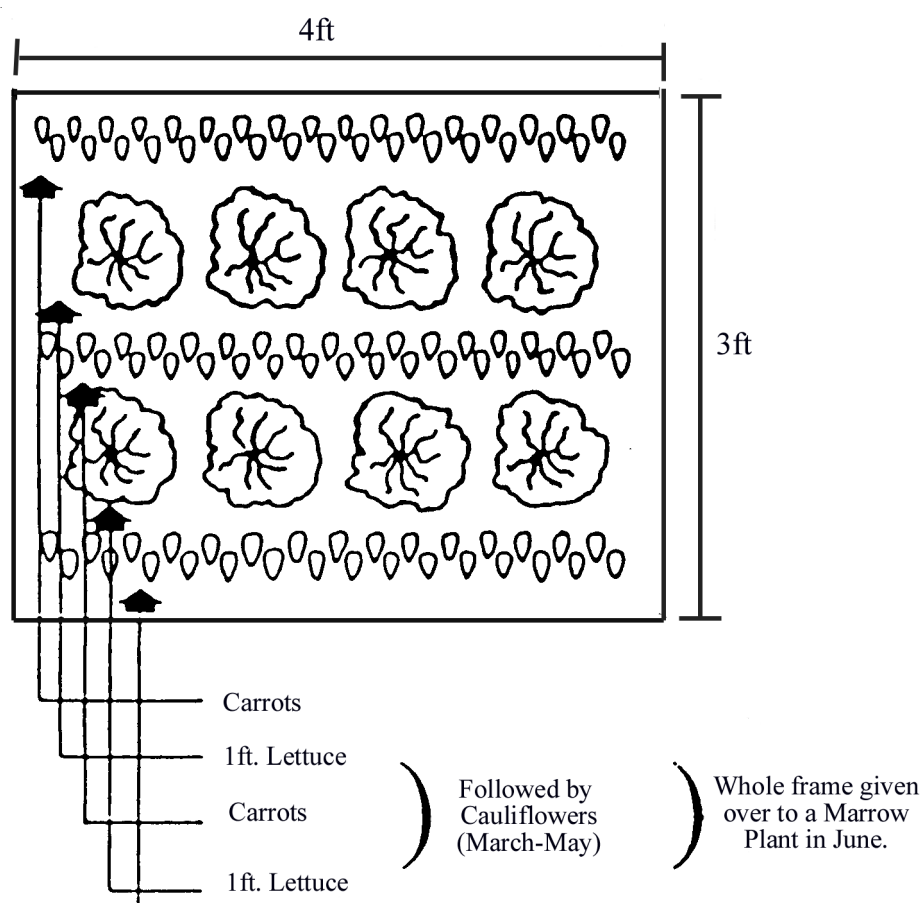
Onions	Autumn sown in cold districts	Aug - Apr
Onions	Spring sown	Feb - Apr
Cauliflowers	Autumn sown	Oct - Apr
Cauliflowers	Spring sown	Feb - Apr
Lettuce	Autumn sown	Oct - Mar
Lettuce	Spring sown	Jan - Apr
Leeks		Feb - May
Early Brussels & Cabbage		Feb - Apr
Early Peas & Broad Beans		Jan - May
Potatoes for sprouting		Jan - Apr
Celery		Mar - Jun
Early dwarf Beans		Mar - May
Runner Beans		Apr - May
Sweet Corn		Apr - May
Marrows & Ridge Cucumbers		May
Tomatoes		May

Your frame can also be used for drying seeds of peas, beans, onions and leeks and for the ripening of onion and shallot bulbs for winter storage.

One vegetable crop can occupy the whole or part of the frame, or you can grow a combination of crops in rotation. For example, carrots can be sown in February in rows 1' apart with a quick-maturing lettuce planted between the rows. When the lettuce are cleared in late March, cauliflowers can be planted to mature in May, and when the carrots are pulled in early June a marrow plant can occupy the frame and should be productive by early July. All these crops will be available ahead of their normal season when they are extremely expensive to buy.

One of the many advantages of your lightweight Two Wests Cold Frame is that it can easily be moved around to where it is most needed. For instance, it can be used in spring to germinate and bring to transplanting size any of the small seed crops; it can then be moved for the raising of dwarf and runner beans, marrows, cucumbers etc. then in autumn it can be placed over crops such as spinach, endives, broccoli, lettuces and parsley, which should have been sown in such a way that the frame fits over them, to extend their season.

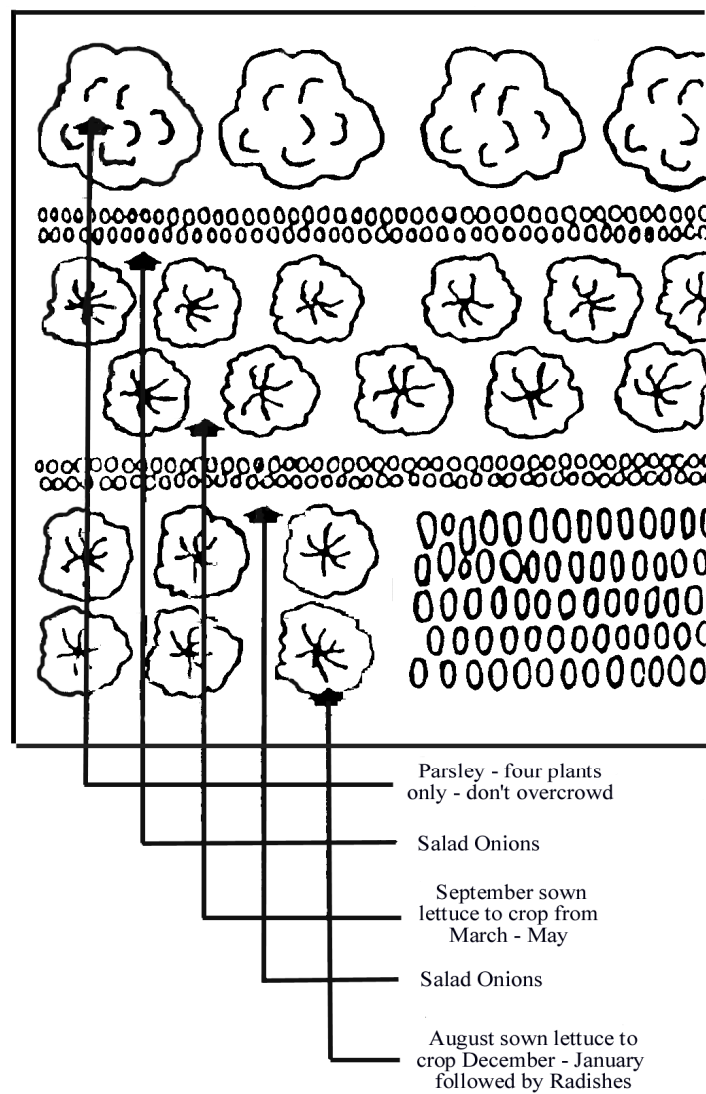
**FRAME PLANTING FOR EARLY CROPS**



**MID-WINTER COLD FRAME SOWINGS TO BE PLANTED OUTSIDE IN SPRING FOR EARLY CROPPING**

Peas and Broad Beans Sow - January Plant - March	Cauliflowers, Cabbages and Brussels Sow - February Plant - April	
Onions (from seed) Sow - February Plant - April	Lettuce Sow - January Plant - April	Leeks Sow - February Plant - May

**SUGGESTED PLANTINGS TO OCCUPY THE FRAME FROM AUGUST THROUGH TO MAY**



**FRUIT**

The two main fruits that can most successfully be raised in frames are melons and strawberries. Taking melons first, the usual frame types are the cantaloupes. Two good plants will fill a frame and can either be raised indoors and moved to the frame in mid-May or sown in situ mid to late May. Melons enjoy bottom heat and a simple hotbed can be made by obtaining some fresh horse manure, adding oak or beech leaves and turning the mixture over two or three times until heat is generated. The leaves retard the heating process and make it last longer. Spread in the bottom of the frame, forming a mound in the center. Cover with about 4" of good soil, with a 6" depth over the mound in which the melons are sown or planted, to be trained away from each other. Main growths should be stopped when they reach the corners of the frame and side shoots permitted controlled growth so as not to shade the flowers and fruits. Close lights at night and give day-time ventilation. Hand pollinate, pushing the centers of male flowers into the female flowers and reduce watering, which can be stepped up again when the fruits have set. Allow only four or five fruits to develop on each plant.

Strawberries respond to the warmth and protection of a frame by fruiting several weeks early. It is preferable to grow them in 6" pots, planted in August or September so that the crowns are slightly above the fairly rich compost. While overwintering the lights need only be in position during severe frost or heavy rain, but in early spring use them to begin warming up the frame, leaving ventilation gaps. Keep moist and as the flowers open pollinate them with a camel hair brush. Give a weak liquid feed as the fruits start to swell. Alpine strawberries can be grown in a frame from seed sown between January and April. Prick out the seedlings and space 10" - 12" apart.

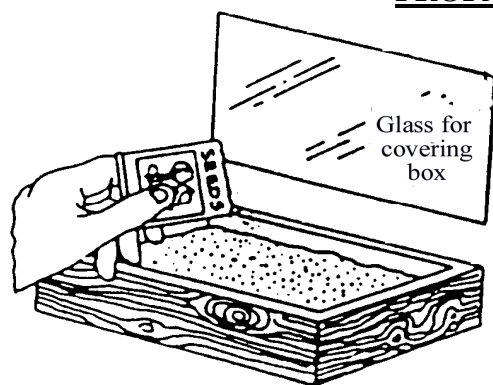
### **RAISING PLANTS FROM SEED**

A frame is a boon for many half-hardy annuals as they can be sown in April, a month earlier than outdoors. Seeds can be germinated in shallow boxes, trays, pans or pots in either John Innes seedling compost or a peat/sand mix. Sow thinly, cover with a sprinkling of compost, water gently with a rosed can, cover each container with a sheet of glass to prevent the surface drying out and remove the glass as soon as the seedlings come through. Prick out into other containers immediately the first pair of true leaves appear and grow on in the normal way.

### **HARDENING OFF**

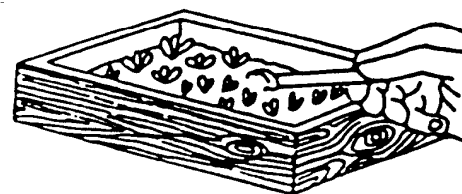
All plants which have been raised in protective conditions prior to going outside must first be hardened off, of the sudden temperature change will be too much for them. This applies to both seedlings and rooted cuttings. A cold frame provides the ideal intermediary stage. They should spend at least a week in the frame with the lights fully open on all fine days.

### **PROPAGATION FROM SEED**



#### **Sowing**

Sprinkle seeds evenly  
Lightly cover, then cover  
box with pane of glass  
until seedlings show through.



#### **Pricking Out**

Transplant when two true  
leaves are formed. Dig out  
with flat plant labels and re-  
Another container.

### **OVERWINTERING CHRYSANTHS**

When the flowering season has finished in November and the plants have died down, lift the roots, cut back the stems and plant them in the frame. Don't allow them to dry out completely but water very sparingly. Give some ventilation except in severe weather. You can either plant out the roots the following spring, thinning out the resultant shoots to the three or four strongest, or leave them to develop in the frame to be taken as cuttings.

### **INCREASING DAHLIA STOCKS**

Tubers should be well wrapped and overwintered in a frost free shed or similar building. In spring place the tubers, which will look shriveled, in boxes of moist peat in the frame and keep them moist. They will soon fatten and shoots will appear which can be taken off as rooted cuttings. Many other bulbous and tuberous subjects, such as hyacinths and begonias can be started off in frames before planting out.

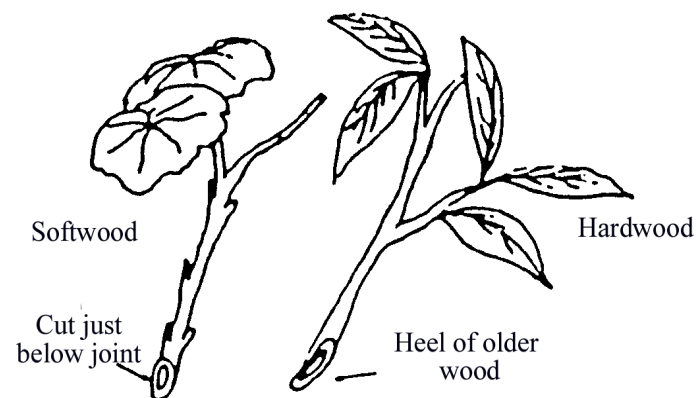
### **OVERWINTERING**

If your frame is not to be used through the winter for vegetables it can offer protection to flowering subjects such as geraniums and the less hardy varieties of fuchsia which would not survive a normal winter outside. Even greenhouse hot plants such as calceolarias will get by provided that a mat or other protective covering is thrown over the frame in severe frost. The best sweet pea plants are obtained by sowing in autumn and overwintering in a frame.

### **ROOTING CUTTINGS**

Your Two Wests Frame will be a boon when rooting all types of cuttings, especially shrubs and other hardwoods. Basically there are three types of cuttings and all require a certain amount of heat (trapped by the frame), plenty of light, moisture and an open compost. Soft cuttings are taken from the green tips of shoots, usually in spring or early summer, and will root better if covered by a transparent polythene bag to begin with. Half-ripe and woody cuttings are taken with a heel of older wood, usually in autumn. Both can stay in their compost in the frame throughout winter. By spring a good proportion will have rooted. All types of cuttings should be taken with a sharp knife and will produce roots more quickly if the ends are dipped in a hormone rooting compound prior to planting.

### **PROPAGATION FROM CUTTINGS**



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