

Hoeing is still necessary, even though there may be few weeds to kill after the hot, dry, summer weather—"good weed-killing weather", as the market gardeners call it. One danger at this time of year is that the surface may become baked and hard, in which case rain is likely to run off instead of soaking immediately into the soil, and the gardener cannot afford to waste any rain which may fall in late summer. Another danger is deep cracking in prolonged dry spells, causing accelerated drying out of the soil and much damage to root systems. Regular hoeing between the plants, especially a few hours after each rainfall, will do much to avoid both those undesirable conditions.

Loam, the main ingredient of all seed-sowing and potting composts, should be stacked and allowed to rot before being used. Gardeners who are going to raise their own seedlings and pot plants will need loam next spring, and a supply of turves should be obtained and stacked to rot. Early summer is the best time of year to dig turves for this purpose, as the soil and grass are still moist, but if the turves are dry when collected, they should be damped thoroughly as the stack is built.

Marguerites, especially the double white and the pink forms, are useful winter-flowering plants for all the milder districts, but are in disfavour because they soon look shabby if not properly attended to. In addition to regular removal of flower heads, either marguerites should be raised afresh each year from cuttings (which root very readily) or the bushes should be cut down hard in late summer to encourage new shoots to grow and flower through winter. Under this treatment marguerites are quite worthy of a place in the garden and will repay the attention given to them. They are also useful as cut flowers, but are much easier to arrange gracefully if cut with long stems from which most of the leaves are stripped.

Oxalis leaves will be reappearing in February as the bulbs start to grow after their short summer rest. The only hope of controlling this weed is to carry out a relentless war against it. A leaf must not be allowed to stay above ground longer than a day or two, and any bulbs seen when the ground is cultivated must be picked out and burnt. For gardeners unfortunate enough to suffer from this pest late summer is a good time to start an all-out campaign against it.

Pot marigolds (*calendulas*) sown in boxes in February, pricked out into other boxes when large enough to be handled, and later planted out in any vacant space in the flower borders or shrubberies will provide a brilliant display of colour from midwinter onward in all but the coldest districts. These winter-blooming marigolds seem to have larger blooms and more vivid colours than those grown in summer. Orange and yellow pot marigolds, purple hybrid wallflowers, daffodils, and jonquils, planted together in autumn in beds in a Wellington garden a few years ago, produced a display of colour through winter and spring that excited quite a lot of local attention.

Schizanthus (butterfly flower) is one of the best annuals for growing in pots in a glasshouse or sunporch. Seeds should be sown in February in a pot or box and the seedlings pricked



The grass-grub (*Odontria zealandica*). From left—First, second, and third stages of the grub; the pupa or resting stage; and the adult beetle.

out into small pots and then grown on to flower next spring.

Self-sown seedlings of antirrhinums, pot marigolds, cinerarias, and many other plants can usually be found growing in beds at this time, especially under plants where the hoe has not disturbed the ground—and, however diligent the gardener may have been in picking off faded flower heads, it seems almost impossible not to miss occasional heads, which ripen and shed their seeds. Self-sown seedlings can be watered, then carefully lifted, pricked out into boxes, and grown on into good plants to be set out in autumn.

Other Tasks for February

Plant anemones and ranunculuses for early flowers.

Continue to **layer border carnations and take cuttings** of pinks and perpetual-flowering carnations.

Strike more cuttings of such plants as lavender, catmint, verbena, and geraniums if required.

Shake out, repot, and **start into growth cyclamen** corms that were dried off in early summer and rested.

Root a few cuttings of choice fuchsias in 3in. pots to make flowering plants for the windows next season.

Sow seeds of Iceland poppies in boxes kept in a shaded place until the seedlings show.

Caterpillars

In late summer caterpillars of all sorts are likely to be troublesome, often defoliating cinerarias and wreaking havoc with geraniums and many other flowering plants. It is characteristic of caterpillar attacks that they come in "epidemics". For months relatively few caterpillars may be seen, and then the gardener may quite suddenly find hundreds, which often do much damage before steps are taken to control them.

Every gardener should train himself to notice tiny holes in the leaves of plants, as these usually tell him that a new generation of caterpillars has just been hatched. An immediate application of derris or D.D.T. dust with a hand duster or of an arsenical spray should check the attack and prevent disfiguring damage. For flowering plants lead arsenate is best used at the rate of 1½oz. in 4 gallons of water. It is sometimes recommended that twice the quantity of hydrated lime be added to reduce the risk of the lead arsenate causing leaf scorch, especially when it is applied to young and tender foliage, but hydrated lime is not always easy to obtain in the small quantities the home gardener needs.

Lead arsenate does not dissolve in water and remains in proper suspension for only a short time. When it is being drawn from a bucket with a garden syringe the liquid must be kept well stirred. As the chemical is a stomach poison, it must be applied systematically over the plants to make sure that all the foliage is covered. If the application is uneven, much unsightly damage can be done by the caterpillars before they eat enough of the lead arsenate to kill them—in fact, some even seem to be able to eat round the poisoned patches.

Grass-grubs

The larvae of a brown beetle that flies at night in early summer, grass-grubs, which are cream coloured with brown heads, can be recognised from all other soil creatures by the fact that they are always seen lying curled in a half circle. They are voracious feeders, eating the roots of grass and many other plants, including small fruits and flowers. Though grass-grubs damage the roots of flowering plants seriously, they rarely kill them and often the poor growth of the flowers is attributed not to grass-grub attack but to some other cause. Consequently no steps are usually taken to eradicate grass-grubs from the flower borders.

The most obvious damage caused by grass-grubs is to lawns, where they may cause large areas of grass to die out in late summer. Nothing can be done to save the lawn at this stage, as the grass is already dead and all that remains is to sow more, but lawns can be safeguarded ("proofed") against grass-grub attack by dressing them with lead arsenate. This is most effective if used at the rate of 3oz. to the square yard, mixed with twice the volume of sand, evenly spread, and watered in thoroughly. The lawn should also be rolled to press damaged grass plants back into contact with the soil and help them to re-root. Proofing, which should be done in early summer, is usually very effective, reducing damage to negligible proportions, as most of the young grubs are poisoned by the lead arsenate. The greatest care should be taken when using lead arsenate, as it is intensely poisonous to human beings.

When a new lawn is being laid down it is always worth while to incorporate 1½oz. of lead arsenate to the square yard with the top inch of soil before sowing the seed to proof the lawn against grass-grub attack for 4 or 5 years, after which the dressing recommended should be applied each year.

All photographs except that of grass-grubs by Douglas Elliott.