

Cultural Details: **Rudbeckia**

There are two classes of Rudbeckia, or 'Black-eyed Susan' – annual bedding types and perennial border varieties, which will be dealt with separately here. We also include the Purple Coneflower, *Echinacea purpurea*, as a perennial type.

ANNUAL VARIETIES

Annual Rudbeckias make excellent bedding plants, particularly later in the year, with their bright golden flowers and contrasting centres. There has been much breeding work recently, and a large range of varieties is now available.

Some growers, having tried Rudbeckias, have been discouraged by the high level of plants dying off during production. This problem can be minimised with good attention to glasshouse hygiene.

Variety Selection

Compact types such as Toto and Becky make excellent pot bedding items in full flower. Taller types like Prairie Sun reach a height of around 80cm, for tall informal bedding displays. Check the catalogue for the full selection.

Programming

Sow mid February to April, for sale from mid-May to late Summer. (Rudbeckias need long days to initiate flowering, so for very early flowering, supplementary lights would be required to increase the daylength to 14 hours.)

Propagation and Growing on

Sow the small seeds (2,000 per gram) onto the surface of a free-draining, open, seed sowing compost, which should be thoroughly wetted with a suitable fungicide prior to sowing (to prevent damping-off diseases), and the trays allowed to drain. Ideally, sow into plug trays to minimise root disturbance. Cover seeds with a thin layer of vermiculite, and cover trays with clear or milky polythene to maintain humidity, until the first seedlings are visible. Germination takes around 7-10 days at 20-22 °C. Keep the germinating seedlings moist at all times, without overwatering, and grow on at 18-20 °C, shading as necessary.

When large enough to handle, after around 4 weeks, move the plants into a 4-pack or 11cm pot, using a standard potting compost. Commence liquid feed programme as soon as plants are established in the pot. Grow at 15-18 °C days down to 10-12 °C

nights, shading where necessary. If required, plants can be moved into a larger, 1-litre pot, for a premium pot bedding product in flower. Use a well-balanced liquid feed programme as soon as plants are established in the pack/pot (i.e. roots visible at the base of the container).

Pest and Disease

Maintain good air movement through the crop, and water in the morning rather than the evening to keep the foliage dry and lessen attack by *Botrytis*. Pay good attention to glasshouse hygiene, using only fresh trays, pots, compost, water and clean bench tops to avoid damping-off diseases and die back which is generally caused by *Verticillium*. Check for the presence of pests such as aphids and whitefly, spraying accordingly.

PERENNIAL VARIETIES

Perennial Rudbeckias make excellent late-flowering border perennials – Goldsturm is the standard yellow variety, but we also have the black & green ‘flowered’ variety *occidentalis* Green Wizard which is used in flower arrangements, and we list *Echinacea purpurea* (purple coneflower) and White Swan also under Rudbeckia, both attractive border perennials.

Programming

See below.

Propagation and Growing on

Sow the small seeds (1,200 per gram) onto the surface of a free-draining, open, seed sowing compost, which should be thoroughly wetted with a suitable fungicide prior to sowing (to prevent damping-off diseases), and the trays allowed to drain. Cover seeds with a thin layer of vermiculite.

These perennial Rudbeckias require cold treatment for germination. Ideally sow into trays March-June for 2 weeks, then into a refrigerator for 3-4 weeks at 5 °C, then back out to around 20-22 °C to complete the process. *Echinacea* will in fact give some germination without the cold treatment, but not as much.

When large enough to handle, move the plants into a large-celled plug tray, using a standard potting compost, then on into an 8-9cm pot.

Cool the plants down in the Autumn, overwintered plants should be kept on the dry side, under protection, such as a well-ventilated polytunnel or glasshouse. Sell as green plants with a colour label, in Spring or Autumn. Overwintered plants can be moved on into a larger, 2 litre pot when growth recommences in spring. Use a liquid feed programme throughout culture during active growth phases.

Pest and Disease

Maintain good air movement through the crop, and water in the morning rather than the evening to keep the foliage dry and lessen attack by Botrytis. Pay good attention to glasshouse hygiene, using only fresh trays, pots, compost, water and clean bench tops to avoid damping-off diseases and die back which is generally caused by Verticillium. Check for the presence of pests such as aphids and whitefly, spraying accordingly. In fact in general, Perennial Rudbeckias should suffer few pest and disease problems.

Information provided for guidance only, as cultural practices and climatic circumstances vary.