

crop culture report:

Gerbera Royal

These gerbera require special attention to moisture management. Avoid overwatering for normal development.

By Tom Linwick

Gerbera Royal have early, uniform flowering and large flowers with deep, rich color. Plants have multiple flower stems with 3-4 blooms at the same time.

Goldsmith Seeds has promoted the gerbera Royal series, bred by Global Flowers, in North America for the past three years. This year, there are several new, improved colors (like Vanilla, Watermelon and Champagne) available along with several semi-double varieties.

Culture

When producing young plants, growers need to hold back and let the plants dry between waterings. Too much water in the early stages between weeks three and six results in plants that do not develop normally. In fact, it is better to lose a few seedlings from being run too dry. The signs of overwatering are deformed leaves that have a thick, leathery appearance.

The larger the plug size, the more difficult it is to control moisture management, since the large plugs stay wet longer. For growers with little experience in growing gerbera plugs, try a smaller plug to make it easier to dry it back to the proper moisture level.

Germination

Optimal temperatures during germination are 74-75° F for the first 3-4 days. Lower the temperature after germination to 70-72° F for the next 3-4 days, eventually dropping the humidity and temperature to 68° F.

A porous, well-drained media should be used with a 1.2-1.5 EC and 5.0-5.0 pH. A coarse peat seems to work best, since it provides better aeration. Keep plugs saturated for three days and then moist for six. Next, dry the plugs back to a medium wetness for the next week. Keeping the newly germinated seedlings on the dry side will initiate rooting and prevent foliar disease.

Maintain 100-percent humidity for the first 3-4 days and then reduce it to 75 percent for the next 4-5 days. After one week, lower to 40- to 60-percent humidity to avoid disease problems. A maximum of 70-percent humidity should be maintained. Good air circulation is very important.

Optimum day length during germination is 16 hours. During low light periods, use of supplemental light is recommended. Gerbera require light during germination, so the seed does not need to be covered. If you like to use vermiculite to maintain a higher humidity, use a very light amount so the seed is still visible after watering.

Begin feeding with a complete fertilizer after the first week or once the seedlings are established. Some fertilizers that work well are 14-4-14 or 17-5-17 at 50 ppm. A 20-10-20 at 50 ppm could work if the light levels are higher. Make sure the plants receive enough feed and the pH remains between 5.5 and 5.8.

The plug crop time is seven weeks from sowing if proper temperature, light and fertility are followed.

The young plants are ready to be potted when they reach the 4-5 true leaf stage.

Growing On

Do not plant too deeply when transplanting gerbera; they should be transplanted at or slightly higher than the soil line of the plug. If soil covers the plant's crown, it will inhibit proper growth and make the crop very uneven in flowering.

While growing on, the media should be a porous, well drained and fully fertilized with a 1.5-2.5 EC and 5.0-5.5 pH.

After transplanting, run a slightly higher temperature (68-70° F) for approximately 5-7 days to help establish the seedling. Thereafter, maintain 64-72° F days and 65-68° F nights. A negative DIFF of 8 degrees for 3-5 hours works very well, making the day temperature 64° F and the night temperature 68-72° F.

Supplemental lighting can be beneficial, especially during the winter months. Do not have a day length greater than 16 hours in the finishing stages; this will result in a longer, strap-shaped leaf. Usually, a 10-hour day length is all that is necessary for finishing a quality plant. When plants are establishing after transplanting, a 14-hour day length works well. After 7-10 days, reduce it to 11-13 hours. The light intensity should be 350-400 foot-candles.


Fertilizers And PGRs

Use a complete fertilizer with a 1.5-2.5 EC. Constant feeding at 200-250 ppm is recommended. Higher levels of feed can be used during late spring and summer months when plants are growing rapidly. A calcium-based fertilizer is recommended during the winter months but may need to be supplemented with an ammonium fertilizer occasionally.

Watch pH closely. The optimal pH is 5.5-5.8. Gerbera favor a lower pH and will show signs of iron and manganese deficiencies when the pH reaches 6.5. At this point, the leaves will have a mottle.

The required PGR amount depends on finished pot size. For 6-inch and larger pots, no growth regulators are necessary. For 4-inch containers, two applications of B-Nine (daminozide) at 2,500 ppm may be necessary; a 5-inch pot should only require one application. If the plugs or young plants are more than eight weeks old when transplanted, apply B-Nine 7-10 days after transplanting.

Do not apply it once buds are visible; this will cause too short of flower stems. If pea-sized buds are evident, the plants will flower in approximately three weeks.

Gerbera are actually fairly easy to grow once you fine-tune your culture to fit the container that you are finishing in. 

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Top to bottom: 'Royal Champagne'; 'Royal Vanilla'; and 'Royal Watermelon.' (Photos: Goldsmith Seeds)