

# Field Cut Flower Production: An Alternative Income Consideration

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Barb Laschkewitsch and Ron Smith, Horticulturists, Department of Plant Sciences

*Farmers are increasing their efforts to make a living on crops other than the traditional crops like wheat, sunflower, barley and oats. One alternative crop that can return a large profit on a small tract of land is fresh cut flowers. Despite the short growing season in the upper Midwest, growing flowers and foliage for the fresh market can be profitable. Market farmers (those that grow products for roadside stands, farmers markets or to sell directly to the consumer) in Kansas, Texas, and Oklahoma have realized the potential profit that this crop can bring. Studies have shown a potential gross earning of \$10,000 or more could be realized on a half-acre tract of cut flowers. On the basis of a two-year study at North Dakota State University, it was found that certain fresh cut flowers can be successfully marketed locally.*

## Summary of Two-Year Research Trial In Fargo and Dickinson

In our trials the following annual flowers were grown and marketed: *Ageratum houstonianum* (ageratum) 'Blue Horizon', *Antirrhinum majus* (snapdragon) 'Rocket Mix'; *Caryopteris incana* (blue spirea) 'Summer Mist'; *Celosia spicata* (wheat celosia) 'Pink Candle' and 'Flamingo Feather', *Eustoma grandiflorum* (lisianthus) 'Blue Rose' and 'Heidi Hybrid', *Helianthus annuus* (common sunflower) 'Sunbright' and *Zinnia elegans* (zinnia) 'Splendor Hybrid'.

Crops were germinated in the horticulture greenhouse on the NDSU campus during the late winter of 1996 and early spring of 1997. Small demonstration plots were field planted in Dickinson and Fargo, in the All-America Selection (AAS) variety trial gardens. In Fargo, the plants were set into clear plastic in double rows approximately 60-70 feet long. The Dickinson plants were not planted into plastic. The sunflowers were direct seeded while all others were transplants. Plants were immediately watered with Miracle Gro<sup>®</sup> (15-30-15)<sup>1</sup> at both locations. Drip irrigation (1 gallon per hour) was installed at the Fargo plot while the Dickinson trials were watered via overhead sprinklers.

<sup>1</sup> Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement by NDSU is implied.

## Harvest

Only cultivars at the Fargo location were harvested for sale. The Dickinson trial served as a cultural trial only. In Fargo, initial harvest began in July with the celosia, ageratum and zinnia, and continued once a week through August. The most productive cultivar in the first year trials was the 'Blue Horizon' ageratum. Wheat celosia (both 'Pink Candle' and 'Flamingo Feather') and the 'Splendor Hybrid' zinnia were the other top producers. 'Rocket Mix' snapdragons and both cultivars of lisianthus were also quite productive, but their short stem lengths made them unattractive to local florists. Caryopteris, although a nice flower when it bloomed, did not start producing until mid-September. Verticillium wilt (caused by a soil borne fungus that attacks the plants vascular system) was also a problem. Due to heavy infestations of insects, no sunflowers were harvested.

## Marketing

Marketing efforts were directed to local retail florists and the farmers' market. The farmers' market showed more potential as there were few vendors with flowers, and consumers making unplanned purchases were less critical than retail florists. Other possible venues that can be considered are wholesale florists, supermarkets, and direct selling to restaurants, hotels, or other businesses.

## Problems/Concerns

The clear plastic allowed weeds to grow, which caused the plastic to tear. If plastic is used, black is recommended. Black contributes to early warming of soil; it also keeps light from reaching the soil, which inhibits growth of weed seeds.

Ageratum and sunflower had problems with whiteflies. Sunflower also had sunflower maggots and were not salable. Aphids were a small problem on the zinnia while the wheat celosia were pest and disease free. Insecticides were applied as needed and included Malathion, Isotox, Neem, Safer's Insecticidal Soap and Mavrik.<sup>2</sup>

<sup>2</sup> Always read and follow label directions. Consult local county extension agents for updates on pesticides labeled for cut flower use.

Crops grown the second year were *Ageratum houstonianum* 'Blue Horizon', *Consolida ambigua* (larkspur) 'QIS Mix', *Rudbeckia hirta* (black-eyed Susan) 'Indian Summer', *Scabiosa atropurpurea* (scabiosa, pin-cushion flower) 'Park's Giant Imperial Mix', *Trachymene coerulea* (blue lace flower), and *Zinnia elegans* 'Border Beauty' and 'Oklahoma'.

In the second year of the study, no plastic was used for weed control. Plants were set out in early June and Miracle Gro<sup>®</sup> (15-30-15) was immediately applied. Rains totaling over 4 inches, falling between 18 of June and 26 of June, flooded the cut flower field and killed most of the plants, which made harvest from the trials untenable. We found, however, that zinnia were more tolerant of the extended saturated soil than the other crops.

## Suggestions From Other Sources:

The authors suggest that anyone seriously considering cut flower marketing subscribe to the newsletter "Growing For Market," edited and published by Lynn Bycznski. It is full of guidelines that anyone who markets flowers, vegetables, or fruits from their farm will find useful.

One of the bits of advice from this publication is to know what it costs to produce the crop of flowers being grown, something that is rarely practiced. This requires very good record keeping of how many stems of each variety of flower is picked for marketing. The record keeping also extends to knowing what inputs produced the flowers; direct labor and materials, the indirect costs of overhead, and finally the profit to be made.

The authors have given talks on this subject a couple of times to find that it is rarely practiced. When told of the necessity of such details, the typical response was "if we added in all those costs we'd never sell anything or make any money!" If that is the attitude, then don't call it a business, but a hobby.

The subscription rate for this newsletter is about \$30/year, and can be obtained by contacting Fairplains Publications, Box 3747, Lawrence, KS 66046. Phone: 785-748-0605.

## Summary

It was concluded from this two-year study that fresh cut flowers could be a viable option as a specialty crop in North Dakota. Conversations with interested individuals as well as those already undertaking a cut flower venture have further strengthened the finding that there is a market niche that needs to be filled.

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North Dakota State University Agriculture and University Extension  
NDSU Dept. 7070, P.O. Box 6050, Fargo, ND 58108-6050