

Swiss Chard: A New Look At An Old Crop

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Introduction

Swiss Chard (*Beta vulgaris* var. *cicla*) is closely related to garden beets. However, unlike beets, only the leaves of chard are harvested instead of the roots (Figure 1). Chard is actually an ancient horticulture crop grown in the gardens of Rome and Greece. Swiss chard, unlike spinach and broccoli, will not get bitter or bolt during hot weather. Thus, chard is an excellent summer green. Chard can be harvested several ways. The young, thinned seedlings make an excellent sprout for salads. Chard can also be harvested as baby chard three weeks after seeding. Bunching chard is harvested by cutting either the entire rosette of leaves or removing the older leaves and allowing the smaller, inner leaves to re-grow. Cutting all the leaves at the soil line approximately 50 days after seeding will allow the plant to re-grow into a new crop of leaves. Chard can also be overwintered by mulching the plants or placing a row cover over them through the winter.

Chard is very high in vitamins A, B, and C, as well as calcium, iron, and potassium. Swiss chard is reemerging as a very popular summer green for growers who sell at farmers' markets or to restaurants. Thus, it seems appropriate to examine and compare performance of cultivars.



Figure 1. Swiss chard stems can be multicolored with dark, green leaves.

Materials and Methods

Twelve Swiss chard cultivars were direct seeded on July 30, 2008 in raised beds (36 inches wide x 60 inches long) as a twin row within a high tunnel near Morgantown, West Virginia. The high tunnel was 30 feet wide x 96 feet long. Each row was 18 inches apart on the bed. Seeds were sown approximately 6/linear foot. The cultivars were planted within the high tunnel in a randomized complete block design with two replications per cultivar. Two weeks later, the seedlings were hand-thinned to one plant every 4 inches.

The chard was regularly irrigated by drip irrigation (two drip lines/bed) and fertigated once every two weeks with calcium nitrate (15.5N-0P-0K-19Ca) fertilizer. No insecticides were applied to the chard. On September 22, the chard was once-over harvested.

Fresh weight of the chard as well as quality and taste attributes was noted.

Results and Discussion

‘Argentata’ also known as *Bionda a’ costa* is an Italian heirloom. ‘Argentata’ has distinct, dark green leaves with whitish/silver midribs. The yield of this cultivar was excellent and the taste was mild and sweet. ‘Bright Lights’ is a 1998 All American Selection winner. This cultivar has a diverse mix of gold, pink, orange, purple, red, and white stem color with a distinctly mild taste. ‘Bright Lights’ would be an excellent choice for a mixed color chard. ‘Ruby Red,’ or rhubarb chard, is very attractive with a dark red stem and veins. Yellow-stemmed chard had significantly more insect damage perhaps due to the color attracting leaf feeding insects. The highest yielding yellow-stemmed chard was ‘Golden Sunrise.’ ‘Golden Sunrise’ has dark yellow to orange stems and a mild flavor. For a flavorful combination, try mixing ‘Argentata’ (white stem), ‘Ruby Red’ (red stem), and ‘Golden Sunrise’ (yellow stem).

Table 1. Marketable yield of Swiss chard, 2008.

| Cultivar | Ounces/ft | Comments |
|--------------------------|------------------|--|
| Argentata | 7.5 | White stem; lightly savoy leaf |
| Five Color Australian | 6.9 | Not as bright as other color mixes. |
| Bright Lights | 6.6 | Excellent multicolor; Better color than ‘Rainbow’ and ‘5 Color Australian’ |
| Oriole | 6.5 | Savoy leaf |
| Northern Lights | 6.4 | Good color mix |
| Fordhook Giant | 6.4 | Dark green with white midrib, savoy leaf |
| Silverado | 5.8 | White midrib; savoy leaf |
| Barese | 5.5 | Thick midrib; flat leaf; green leaf |
| Ruby Red (Rhubarb Chard) | 5.4 | Dark red midrib |
| Rainbow | 4.8 | Mixed color |
| Magenta | 4.8 | Light red/pink midrib |
| Golden Sunrise | 4.7 | Very bright yellow/orange veins |
| Flamingo | 4.6 | Light pink midrib |
| Virgo | 3.7 | Green leaf; white midrib |
| Bright Yellow | 3.6 | Not the brightest yellow |
| Lucullus | 2.6 | Poor stand; white midrib |
| <i>LSD (0.05)</i> | <i>0.4</i> | |

Table 2. Taste evaluations of Swiss chard, 2008.

| Cultivar | Taste Ranking of Raw Leaves^z |
|-----------------------|--|
| Argentata | 3 |
| Five Color Australian | 2 |
| Bright Lights | 3 |
| Oriole | 2 |
| Northern Lights | 2 |
| Fordhook | 2 |
| Silverado | 2 |
| Barese | 1 |
| Ruby Red | 2 |
| Rainbow | 2 |
| Magenta | 2 |
| Golden Sunrise | 2 |
| Flamingo | 1 |
| Virgo | 1 |
| Bright Yellow | 1 |
| Lucullus | 2 |

^z1=bitter (oxalic aftertaste); 2= slightly mild; 3=very mild (no oxalic aftertaste).