

Deep Winter Greenhouse Crop List

September, 2017

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DEEP WINTER GREENHOUSE CROPS

Deep Winter Greenhouses (DWGs) allow producers to grow crops in winter without lighting systems and with minimal additional heat inputs. When relying on natural light, growers must also pay attention to three winter micro-seasons that impact plant growth: Diminishment (October - December) when available sunlight decreases each day; Solstice (December - early February), when sunlight is very similar each day; and Expansion (mid- February - April) when daily sunlight increases.

Winter producers using DWGs in Minnesota often grow a number of different salad green crops that perform well in these unique environments. But while growth in many crops slows dramatically, or goes dormant during the Diminishment period, crop choice and timing is critical for successful DWG production.

The following list includes many crops that experienced DWG producers have found to work well in the various winter micro-seasons.

DIMINISHMENT SEASON (OCT-DEC)

Salad Greens in planters

- *Arugula
- Astro Arugula



- *Carlton Komatsuna
- Summerfest Komatsuna
- Bulls Blood beets
- Golden beets
- Wrinkled Crinkled Cress
- Red Veined Sorrel
- Hon Vit (radish leaves)
- Tatsoi
- *Mizuna

- Mustards:

- Green Wave
- *Scarlet Frills
- *Ruby Streaks
- *Garnet Giant
- Red Giant
- *Carlton

- Claytonia

- Minutina

- Red Russian Kale

- Johnny's All-star Lettuce Mix



Transplants grown in raised beds

- Mai Qing Pac Choi
- *Joi Choi
- *Purple Pac Choi
- Hakurei Turnips (start early, direct seeded)
- Broccoli: DeCicco
- Broccoli Raab

- *Sessantina Grossa

- Spring Raab

- Champion Collards

- *Bright Lights Chard

- Kale:

- *Winterbor (purple)

- *Starbor

- Toscano

- Red Oak Leaf Lettuce

- *Green Butter Lettuce

- *Fenberg Romaine

- Breen Red Romaine

SOLSTICE SEASON (DEC-EARLY FEB)

Salad Greens in planters

- *Arugula
- Astro Arugula
- *Carlton Komatsuna
- Summerfest Komatsuna
- Bulls Blood beets
- Golden beets
- Wrinkled Crinkled Cress
- **Tokyo Bekana
- Red Russian Kale
- Tatsoi
- *Mizuna

- Mustards:
 - *Green Wave
 - Scarlet Frills
 - *Ruby Streaks
 - Garnet Giant
 - Red Giant
- Johnny's All-star Lettuce Mix
- *Johnny's Wildfire Lettuce Mix

Transplants grown in raised beds

- **Broccoli Raab: Sessantina Grossa
- *Mai Qing Pac Choi
- *Joi Pac Choi
- Purple Pac Choi
- Chinese Cabbage

EXPANSION SEASON (EARLY FEB -APRIL)

Salad Greens in planters

- Arugula
- Astro Arugula
- *Carlton Komatsuna
- *Summerfest Komatsuna
- Spinach
- Bulls Blood beets
- Golden beets
- *Wrinkled Crinkled Cress
- Tokyo Bekana
- Hon Vit (radish leaves)

- Tatsoi
- Mizuna
- Red Russian Kale
- Mustards:
 - Green Wave
 - Scarlet Frills
 - *Ruby Streaks

- *Claytonia
- *Minutina
- **Johnny's All-star Lettuce Mix
- **Johnny's Wildfire Lettuce Mix

Direct seeded in raised beds

- Hakurei Turnips
- Alpine Daikon Radish

Transplants grown in raised beds

- *Sessantina Grossa Raab
- Minuet Chinese Cabbage
- Any leaf lettuces or
- Small head romaine

* = best producers

