



# NEW WEST GENETICS

## General Agronomic Guidelines for ELITE™

### Planting

Planting between 25 May and 10 June when soils are warmer ( $>9^{\circ}\text{C}$ ) will minimize seedling mortality and give rise to faster emergence. A uniform stand will improve weed competition, uniformity of seed maturation and overall harvestability.

- Planter recommendations:
  1. For higher rates ( $>10\text{lbs/ac}$ ), suggested for large-scale commercial production, a standard grain drill (e.g. Great Plains) has been successful. Final stands should target  $>6$  plants/ $\text{ft}^2$  with row spacing of  $\sim 6''$
  2. For lower rates ( $<4\text{ lbs/ac}$ ), a vacuum planter (e.g. Monosem) has proven effective with row spacing traditional to corn production ( $\sim 30''$ ) allows for the use of existing cultivators. **NOTE:** lower plant stands will result in higher branching, taller plants and lower overall crop uniformity later in the season.
- Planting depth:  $0.5''$
- Seedbed: firm
- Ensure adequate moisture after planting
- Crusting: be prepared to take action as soon as possible if producing in soils prone to crusting.

### Fertility

- N: 60-80 lbs/ac
- P: 30-45 lbs/ac
- K: 50-60 lbs/ac

### Irrigation/water availability

- 10-14" per season
- Excessive moisture after planting can severely impact crop establishment so the possibility of saturated soil conditions should be avoided.

### Grain Harvest

- The crop will mature in 100-110 days and is ready for harvest when approximately 70% to 80% of the seeds are ripe and the seed moisture is  $<20\%$ .
- Drying bracts and seed exposure are a good indicator that the crop is ready to harvest.
- Fall frosts will assist in a gradual drying but a killing frost will initiate a rapid dry down so that combining must take place within days.
- Combines manufactured in the last 10 years will harvest hemp with few modifications.

- Straight combining is recommended with a draper header preferred over an auger header as there is more room for the hemp heads to lay down and feed evenly into the combine. We have not attempted to swath ELITE™.
- Combine settings:
  - Cylinder Speed: 450 - 600 rpm
  - Concave: 30 – 50 mm
  - Wind: 1070 rpm
  - Sieve: 3mm
  - Chaffer: 7-10mm

### **Flower Harvest**

- We have limited experience with mechanized flower harvest.
- Currently, two strategies are being used:
  1. Collection of chaff as it is expelled from the rear of the combine. Chaff should be immediately dried to 8% moisture. Effective air circulation at temperatures of ~20° C will maximize drying potential. Chaff carts have been manufactured and are available for purchase although they are in limited supply. Other pieces of equipment have been custom built to capture chaff although none are commercially available to our knowledge.
  2. Collection of whole heads using a modified header. The heads will need to be dried immediately in a manner similar to that described above. Flower and seed can be separated post-drying.

Other helpful resources:

<http://www.hemptrade.ca/eguide>

<https://dev.purduehemp.org/hemp-production/>