

# ChenaFresh



## America's northernmost commercial year-round greenhouse at Chena Hot Springs Resort.

Chena Hot Springs Resort produces on-site hydroponic lettuce, tomatoes, herbs, fodder (animal feed), and small fruits for the restaurant, employee meals and livestock. More than 500 heads of lettuce a week, and annually 25,000 lbs of tomatoes, 275 tons of fodder, and 400 lbs of zucchini is produced in the 6000 ft<sup>2</sup> year-round controlled environment geothermally heated greenhouse, 2178 ft<sup>2</sup> high tunnel, and 192 ft<sup>2</sup> fodder system.



- The result of ongoing research activities, plant varieties best suited for Chena's conditions have been selected for commercial production.
- Plant management and production strategies to efficiently deliver nutrients, provide lighting, manage pests, and facilitate the ideal environmental conditions for maximum yields are evaluated and implemented.
- Alaska's dynamic weather provides unique climatic challenges for any greenhouse operation. Short summers offer long days (16-22 hours) of natural light without a night period. Meanwhile, the winter requires 100% crop lighting October till March with minimal effective natural light.
- Chena Hot Springs currently utilizes LED lights for crop lighting. The LED systems are designed specifically for each crop to decrease the winter lighting costs while maintaining production.
- Outdoor summer temperatures often reach 80°F, and if unmanaged, the greenhouse temperatures will quickly exceed a detrimental 120°F. Mastering controlled environment production techniques, practical methods are utilized to maintain a proper crop environment for any season, in any location.
- Challenged with temperature extremes, the double-poly greenhouse is designed to maintain a growing temperature of 70-75°F for tomatoes, and 60-65°F for lettuce when outside temperatures drop below -60°F a difference of 130°F protected by a thin plastic wall.

"ChenaFresh produce is the freshest lettuce in town" Harvested each morning, the lettuce in the restaurant featured on the menu is truly, just picked. Each head of lettuce and every tomato is hand picked at the peak of freshness for flavor, and appeal. Our objective is to be sustainable, self-sufficient, and self-reliant.



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Greenhouse location:  
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