

Planting Frozen-Stored Spring Plant Seedlings Outside the Standard Planting Window

Due to a late, cold spring, the start of the 2012 spring planting season may be delayed. As a result, some planting contractors are asking their clients if they can plant trees past the normal spring plant deadline in order to avoid a potential production and contractual crisis. The current Forest Service spring planting deadline of June 21 is not simply an administrative date, but is based on studies and field observations over the past 30 years. However, in order to avoid burdening the planting sector unnecessarily, the Forest Service realizes that this date may have to be extended under special circumstances. The real question is how late spring-plant, frozen-stored trees can be planted with minimal risk of establishment failure or reduction in growth.

The first consideration is whether the planting site will be favourable for planting. Extending the planting date will increase the likelihood of planting during warmer air temperatures and drier soils. This can be minimized by following the snowmelt, and planting lower elevations and south facing slopes first. It is imperative that stock handling procedures be closely monitored and adjusted as necessary. Also, seedlings should **not** be planted deeper if planted later.

Increasing the length of time seedlings are frozen in cold storage by a couple of weeks will have minimal negative impact. More important is the method and date that the seedlings are thawed. Seedlings should be thawed in less than a week using the "Quick Thaw" method and promptly planted. Stock condition should be monitored more frequently and if in question Nursery Services should be called.



The third major concern is that late spring planted frozen-stored seedlings are out of sync with the planting site annual growth rhythms. Spruce in B.C.'s central interior break bud on average, the May long weekend. Assuming bud-flush 10-14 days after planting, late planted seedlings will not flush until July, resulting in insufficient time to undergo the normal shoot development processes before the onset of colder fall temperatures. Thus these seedlings will be more susceptible to frosts and most likely will resume growth next spring in poor condition. This condition of modest survival vs. vigorous growth may be retained for many years.

In general, frozen-stored spring plant seedlings should be planted as soon as possible, ideally following the melting of the snow. Late planting increases the risk of failure and poor performance, although the magnitude of the risk is such that we cautiously recommend the 2011 spring planting season be extended by one to two weeks on a contract by contract basis, depending on the planting site, stock size and local knowledge. We strongly recommend that you visit these sites at the end of the summer and following spring to monitor survival and growth.

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