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Priming

Benefits of Thermal Priming

Inputs and Outputs

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Prime - *First in order of time, existence or development*



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So

Lets start at the very beginning
A very good place to start

When you Sing you Begin with DO Re Mi



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- When you grow you begin with



Priming – Inputs



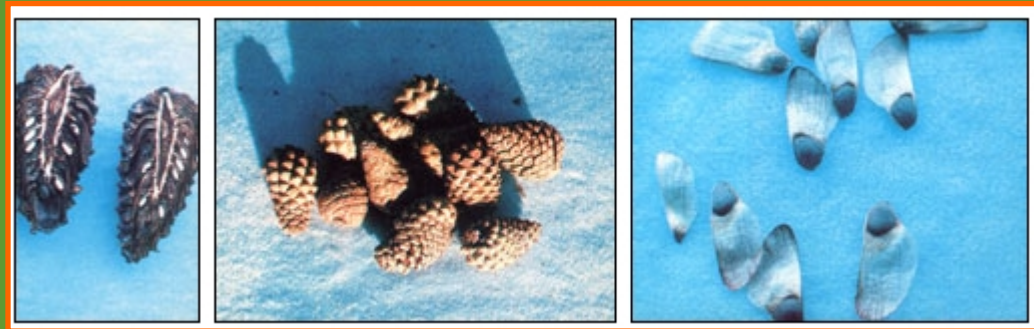
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seed



seed

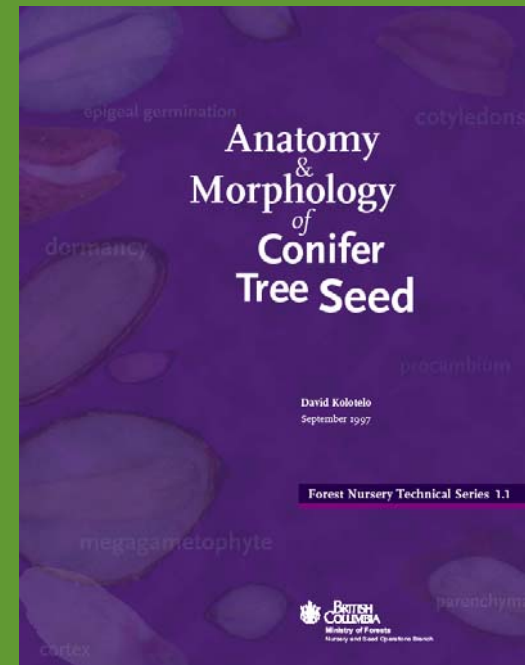
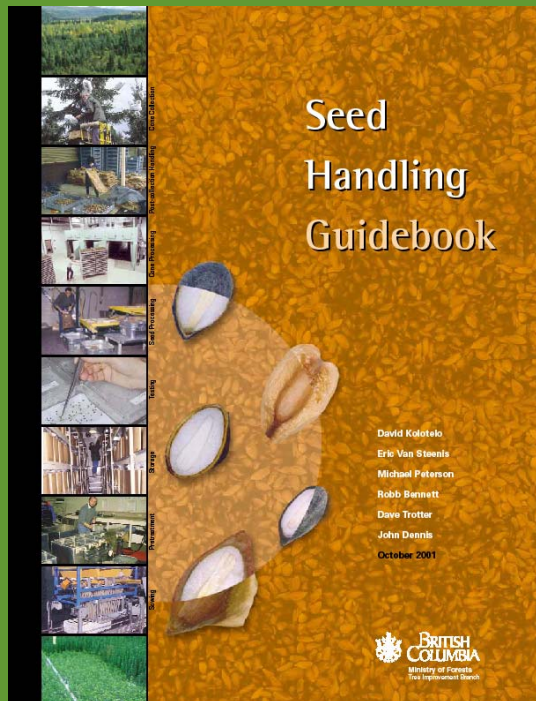


seed

Prime: To supply or equip with information for use



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<http://www.for.gov.bc.ca/hti/treeseedcentre/tsc/seedhandlingguidebook.htm>

Refresher – Q 10 Factor



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The function used to describe how biochemical reaction *rate* changes with changing temperature is called the “Q10 factor.” Over a specified temperature range, it describes how the rate of a biochemical reaction changes per 10°C interval.

Assuming stratification is complete and other inputs such as moisture, oxygen, and carbohydrate reserves are not limiting, the rate at which biochemical processes proceed within a seed depends on *seed* temperature.

...total heat sum governs Germination Speed

...each 1°C rise in seed temperature effects a 10% increase in respiration rate or Germination Speed

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Prime – Having something in the best state possible to fulfill an objective.



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Prime - To prepare for a particular purpose or operation;



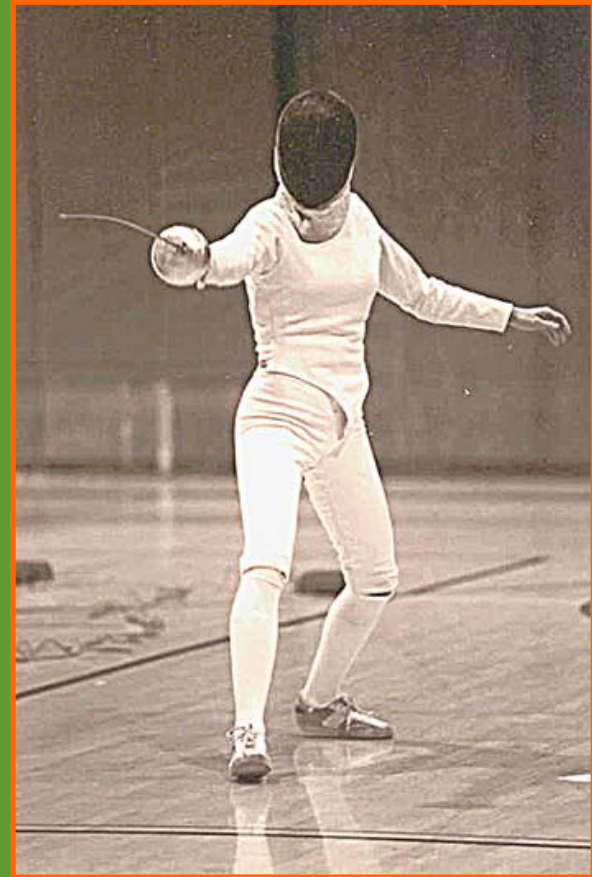
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Prime – In Fencing, the first of eight defensive positions



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Prime – Defense against all on comers!



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Priming - Inputs



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What do we do?

Priming – Inputs – Prior to Thermal Priming



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- ✓ Examine seed carefully
- ✓ Clean and treat if required
- ✓ Verify germination potential (non BC)
- ✓ Ensure adequate moisture content
- ✓ Split large seedlots into moderate sized bags
- ✓ Leave small opening in bag for oxygen
- ✓ Rotate bags daily
- ✓ Check regularly for mold and seed cracking
- ✓ Place seed in a secure, evenly-heated area
- ✓ Remove seed to cooler post thermal priming

Priming - Outputs



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What are the benefits?

Prime – Of the greatest relevance or significance



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- ✓ Shorten germination duration
- ✓ More uniform germination
- ✓ Reduce misting duration
- ✓ Reduced risk of disease
- ✓ Improved germination rate
- ✓ Better seed usage
- ✓ Reduction in energy use



Sw - Eight days from sowing

Prime – The most flourishing stage or state;
The choicest or best part of anything



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**Many purport to want
this – but do they really?**



What is the business case for excellence?



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“Many of the CEOs we interviewed are eager to get back to basics – ...

“These executives believe that the industry is becoming increasingly commoditized, and do not see extra services or better quality as generating higher margins.”

Forest, paper & packaging

CEO Perspectives

Viewpoints of CEOs in the forest, paper & packaging industry worldwide

2008 Edition



Is Priming an Enhancing Proposition?



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“Other CEOs,...are focusing on the opportunities for differentiating their products.”

“They are also examining their value propositions to ensure that the extra services they offer are really enhancing their revenues.”

In Every Definition of the Word We Believe it Is!



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