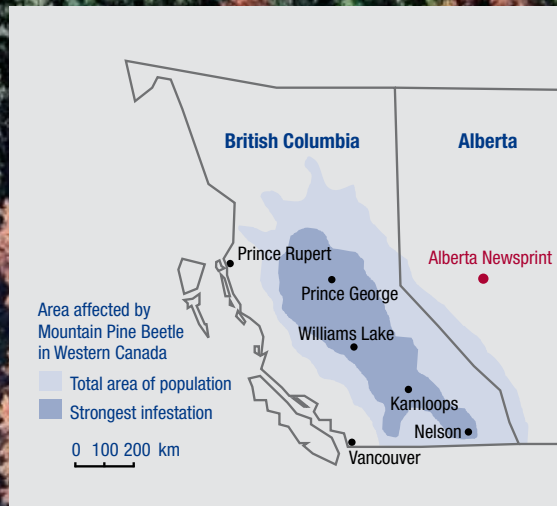


New shoe press solves raw material problems at Alberta Newsprint

“Wild Rose” defies the Mountain Pine Beetle

Thanks to the new NipcoFlex shoe press installed at the Alberta Newsprint Company (ANC) in Whitecourt, Canada, the company is now able to increasingly use pulp from trees infested with the Mountain Pine Beetle. The shoe press was successfully started up in 2009 on PM 1, the so-called “Wild Rose”. The rebuild has also led to increases in productivity and enhanced paper quality.



Infested forest areas.

Population area of Mountain Pine Beetle in Western Canada.

A tiny organism causes massive damage.

In the early 2000's, an outbreak of the Mountain Pine Beetle occurred in British Columbia. Its impact on the eco-system, as well as the economic impact has already been felt throughout the region. A more recent meteorological event coincided with the beetle's short migration period and carried the beetle over the Rocky Mountains and into ANC's wood basket. In the past, cold winters caused beetle winter kill rates in the order of 97% and kept the infestation in check. Recent mild winters have increased the survival numbers and the insect population has thus exploded.

Papermaking implications

ANC expects the fiber supply to contain greater amounts of Mountain Pine Beetle affected trees either those killed recently, with excessive pitch content or those left standing dead and dry producing a weaker pulp with poor brightness and optical properties. Additionally, the beetle leaves a fungus behind which causes a blue stain on the inside perimeter of the tree, which also happens to be the main portion of the log that is converted by the lumber mill to wood chips and subsequently supplied to paper mills.

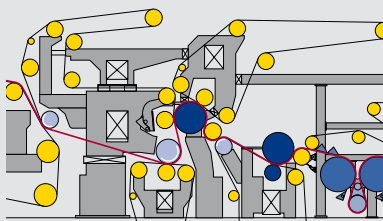
To ensure continued efficient performance of the paper machine and maintain paper quality, ANC entered into a research program with a number of partners committed to help determine the best path forward.

Besides ANC, contributors included, Alberta Forestry Research Institute (AFRI), Alberta Research Council (ARC), FP Innovations, Innoventures Canada, National Research Council Canada (NCR) and Voith Paper. All looked for innovative methods to manage the inferior wood supply.

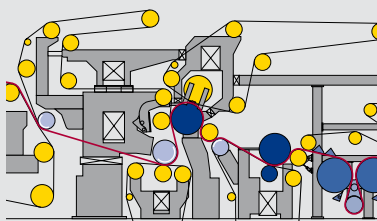
| Property | Rebuild improvements | Comments |
|--------------|----------------------|---|
| Press solids | 40-46% | 6% gain (absolut) |
| Reel speed | 9% increase | non affected wood by the Mountain Pine Beetle |
| Steam usage | up to 20% reduction | |
| Web breaks | 12-60% reduction | dependent on location |
| Tensile | 5% increase | normalized to 1,400 m/min |
| TEA* | 8% increase | normalized to 1,400 m/min |

* TEA = Tensile Energy Absorption

“Wild Rose” before rebuild ...



... after rebuild.



The installation of a NipcoFlex shoe press has considerably increased productivity and paper quality.

Successful with new shoe press

In order to compensate for the expected loss of sheet strength on the paper machine, especially at the weakest point, the first open draw, a decision was made to install a NipcoFlex shoe press at the 3rd nip. The improved press solids and reduced draw would ensure highest paper machine operating efficiencies and compensate for the weaker furnish. It also makes certain that the sheet’s dry strength properties such as tensile and TEA are maximized for superior press room runability. Special consideration of all design

details of the press were evaluated early during the engineering phase in anticipation of this critical application.

ANC’s high quality newsprint sheet has long been well regarded in the industry. Significant additional improvements to the paper machine operation and paper quality have been achieved and documented with the installation of the NipcoFlex shoe press. The operating window has been expanded, allowing increased use of Mountain Pine Beetle affected fibers, as well, future growth potential assured to lower basis

weight value added grades. Machine speed has increased since the installation of the NipcoFlex shoe press and “Wild Rose” PM 1 recently achieved its mill speed record of 1,600 m/min.

Location

Canada

Whitecourt, Alberta
Alberta Newsprint Company

Edmonton Ottawa

Whitecourt is located along the Yellowhead Trail, Western Canada’s most famous settler trail from the 19th century. The town has approx. 10,000 inhabitants and is situated in the western part of the province of Alberta, about 200 km north-west of Edmonton. Forestry, oil and gas industries as well as tourism are the cornerstones of Whitecourt’s economy.

Contact

Mark Young
mark.young@voith.com



“Voith Paper was a tremendous partner...”

Mike Putzke, Mill Manager,
Alberta Newsprint Co.

“Voith Paper was a tremendous partner to ANC in helping us utilize Mountain Pine Beetle attacked trees. The shoe press installation and start-up was flawless.”