Discussion on Timber SCM Method for the New Production System in JAPAN

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The timber self-sufficiency rate of Japan has been depressed despite growing stock of wood. It is important to unify log and lumber production processes and to establish timber production management system corresponding timber demand agilely, in order to utilize domestic wood resources. To achieve objectives above, National model projects to establish new efficient systems that unify log and lumber production, New Production System, is put into practice. Timber production simulation model based on Timber SCM is planned to apply to 3 sawmills in Oita and Kumamoto model area of the New Production System under the direction of the Forestry Observation Research Institute.

The goal of Timber SCM method is not only to reduce inventory by overproduction and reserve inventory for less undersupply simultaneously but also to stabilize and accelerate log procurement speed. The Bullwhip effect could be eliminated by utilization of information assets including inventory volume, inventory time, demand volume, and ROI based on Throughput accounting in the field of Theory of Constraints (TOC).

As results of research to describe the models are as below. Since kiln-dry scheduling of lumber is different in size and purpose, it is necessary to plan individually for lumber production plan and inventory control including sales forecast. It is indispensable to consider log production plan of logging contractors along supply chain.