

TIMBER AND WOODWORKING

Need to Develop Above-Ground and Airborne Felling Techniques

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As has been noted in this publication before, the forests in certain areas of the country, which previously were considered richly forested, such as the European North and the Ural region, are thinning. We believe there are two main causes behind this phenomenon. The first is the fact that logging volumes are not set in accordance with any scientific study or data. Secondly, there is no set of advanced, environmentally non-damaging logging equipment which would make it possible to harvest the mature tree without harming the undergrowth and the soil.

While comparing the two types of forest utilization proposed by the foresters, we should note that the first type, which comprises clear felling with subsequent reforestation by planting, leads to a massive ecological jump from complete annihilation of the forest to a slow rebirth and restoration of all its functions. The second method, consisting of types of felling operations that spare the forest environment, is preferable because the forest will continue to exist without any massive changes in its state.

The first route is more attractive to the timber industry since it simplifies the process of developing felling technology. Following this path, timber industry engineers have created a set of logging equipment that does away with manual labour at the felling site. While accomplishing this, however, they have taken a step backwards in the attempt to preserve the forest environment. At one time this might have been considered justifiable. But now that fifteen years have passed since the creation of feller-bunchers and feller-skidders, our scientists should be working on models of a new generation of felling equipment.