



TEXAS A&M
FOREST SERVICE

Post Storm Forest Assessment – Leaning Trees

Compression Wood & Leaning Trees Post Storm – Lessons Learned from Hurricane Hugo

Post Hurricane Hugo several studies were done looking at compression wood and leaning tree tolerances for survival within forested stands. The wood properties of loblolly pine 10 years following the event were documented. It was assumed that 10% was the maximum allowable amount of compression wood that would be acceptable for normal wood product yield. Based on that assumption, the following conclusions were found.

- Trees of any age at the time of the storm and with a lean greater than 45° should be harvested and/or replanted the next planting season.
- Trees 4-6 years old at the time of the storm with a lean greater than 35° should be replanted the next planting season.
- Trees 8 years and older at the time of the storm with a lean greater than 25° should be harvested and the site replanted the next planting season.
- Annual growth decreases significantly in trees with lean greater than 25° .
- The proportion of stem compression wood increased significantly with tree age and with lean greater than 25° .
- Initial angle of lean does not directly impact chip quality. However, there is an indirect affect because increasing angles of lean decreases diameter growth over time.
- Any trees with less than 25° of lean should recover.
- Trees less than 4 years of age with less than 45° of lean should recover.

