Assessing increment cores to determine wood quality

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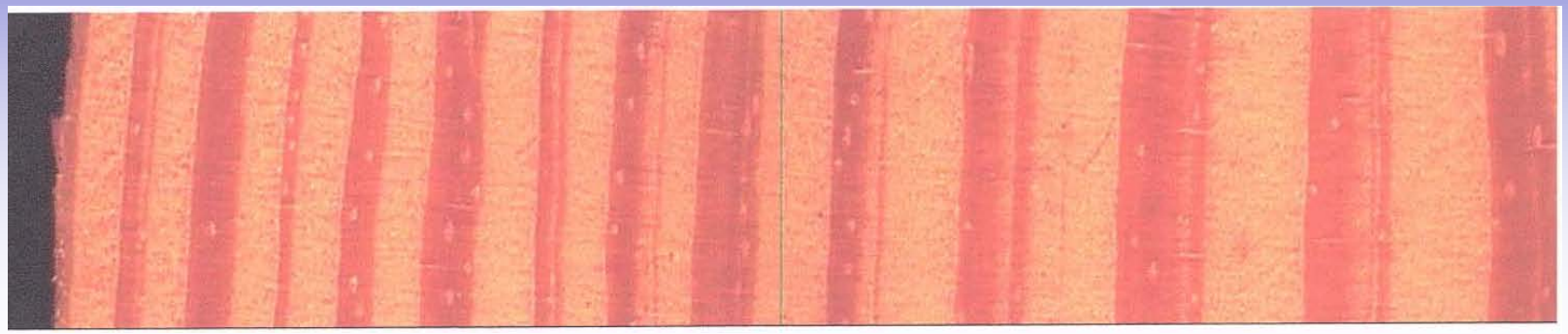
Wood quality:

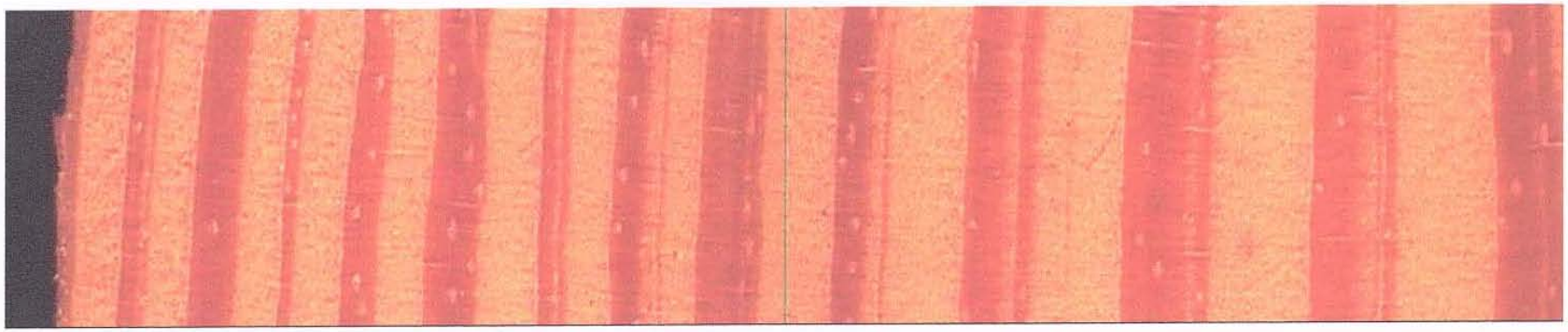
A measure of the characteristics of wood that influence properties of products made from it.

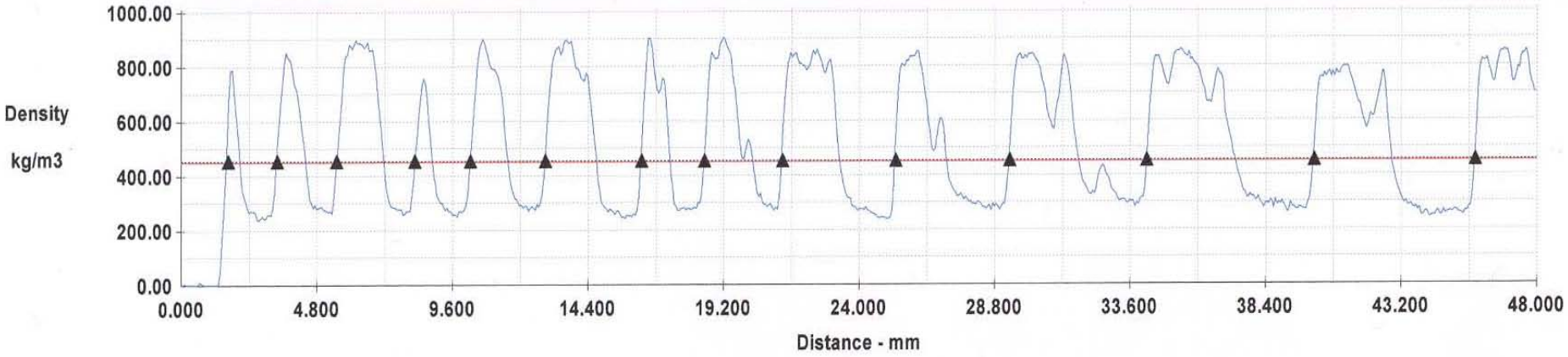
- **Density**
- **Uniformity of growth rings**
- **Fiber length**
- **Percentage of clear bole**
- **Presence of juvenile and reaction woods**

Silviculture/growth manipulation impacts on wood quality

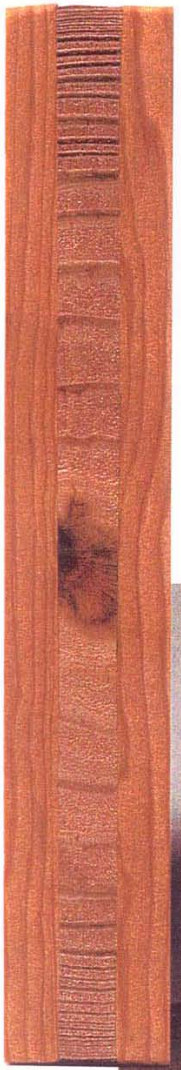
- **Spacing at planting time**
- **Thinning**
- **Fertilization**
- **Irrigation**
- **Pruning**
- **Genetic improvement**






Density
kg/m3
1000.00
800.00
600.00
400.00
200.00
0.00
0.000
4.800
9.600
14.400
19.200
24.000
28.800
33.600
38.400
43.200
48.000
Distance - mm

QMS Tree Ring X-Ray Scanner



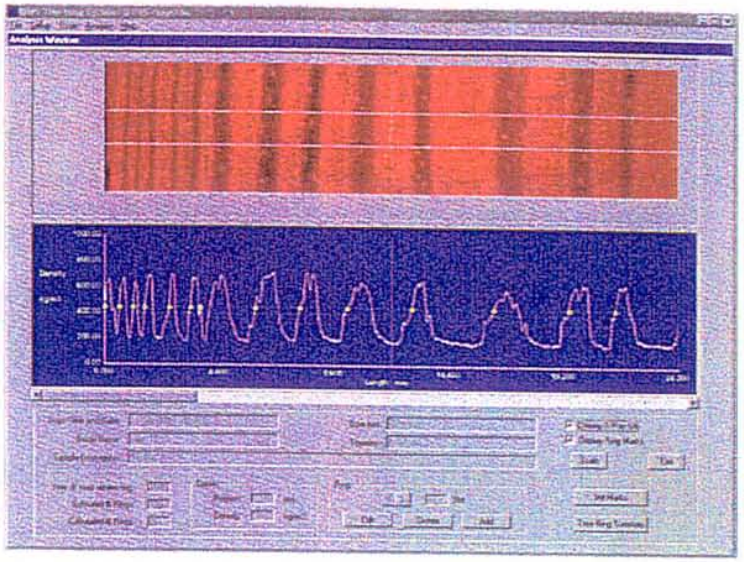
Our new x-ray tree ring scanner, the QMS QTRS-01X, brings the best technology in the world to the measurement of increment core tree ring samples. The QTRS combines a video image with x-ray density determination for a fast and accurate measurement of tree rings. We've adopted our proven x-ray technology and software platform from our world-leading QDP-01X Density Profiler for the panelboard industry to the development of our tree ring scanner. Our proven technology and applications knowledge provide you with our newest and best approach to tree ring analysis.

dependable

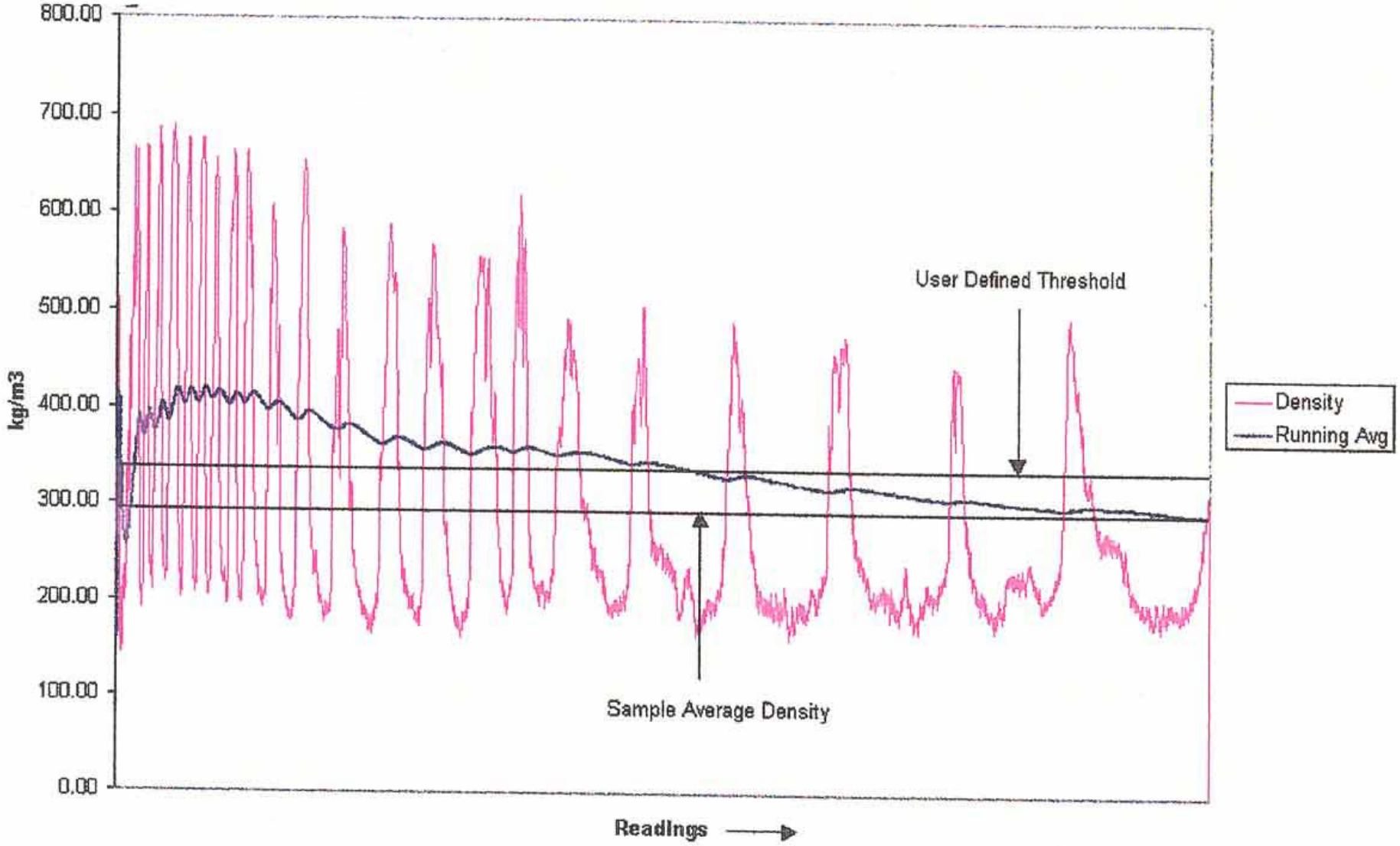
Our new QMS QTRS-01X is available worldwide. Bring the leading X-RAY scanning technology in the world to your forest plantation or research lab.

SPECIFICATIONS OF THE *QMS QTRS-01X*.

- *QMS QTRS-01X uses x-ray technology to make density measurements from increment cores.*
- *The QTRS-01X couples the x-ray density measurement with a precisely scaled video image of the increment core to increase your power of analysis.*
- *User selectable automatic ring counting and late wood identification systems.*
- *On screen user editing of ring identification and marking.*
- *Complete software system provides for identification of maximum and minimum density values in a ring, measures ring width, counts rings, allows user editing of false rings and other ring anomalies, file archiving, and other features.*



- *All files automatically archived and available for re-analysis at any time.*
- *Windows NT™–based software provides for complete control of the X-RAY scanning system for simple and safe operation.*
- *X-RAY resolution of 0.03mm*
- *User selectable scan increment from 0.02mm per step up.*
- *ASCII data files available for further analysis.*
- *Solidly built from industrial components for accuracy and reliability. One year warranty.*


800.00
700.00
600.00
500.00
400.00
300.00
200.00
100.00
0.00
kg/m3
User Defined Threshold
Sample Average Density
Readings
Density
Running Avg

Opportunities for collaboration

Assessment of past nutrition studies

Assessment of past silvicultural practices

Evaluation of genetic characteristics for selective breeding stock