

Wood measuring methods used in Finland 2023

Metsäteho Result Series 9-EN/2024

Timo Melkas, Metsäteho Oy

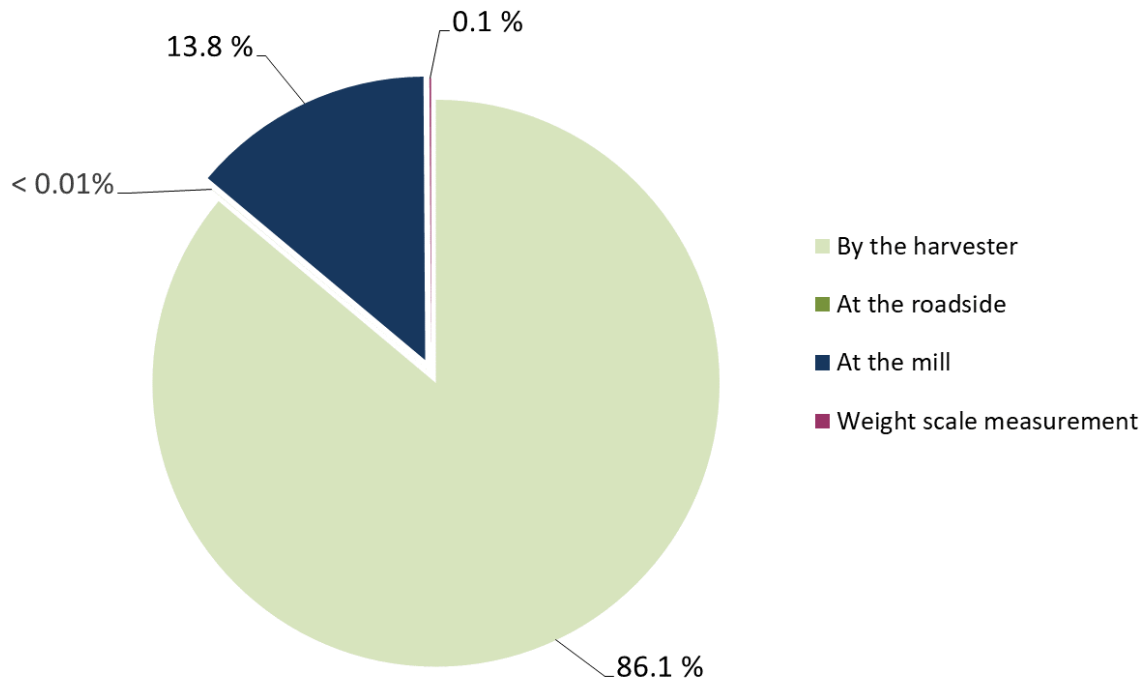
Publication in Finnish: Metsätehon tulokalvosarja 9/2024: Puutavaran mittausmenetelmien osuudet 2023

The volume of wood measuring in 2023

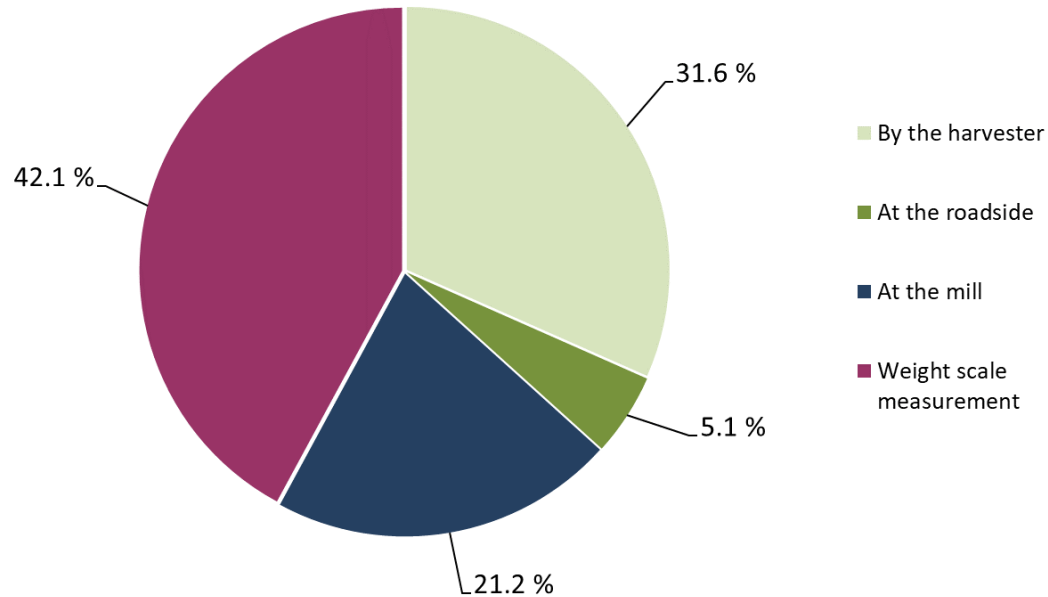
- Wood measuring methods used in 2023 statistics is based on the answers which Metsäteho owners, the Finnish forest industry companies and Metsähallitus, have reported. It covers 76.2% of domestic timber felling.
- The used volumes (m³ sob) in statistics are the next:
 - Standing sales 43.1 million m³
 - Delivery sales 3,4 million m³
 - Together 46,5 million m³
- In 2023, the volume of standing sales was 43.4 million m³ sob and delivery sales 5.6 million m³ sob from private-owned forests. (Source: Luke = Natural Resources Institute Finland)
- Timber felling from industry-owned and state-owned forests totalled 12.0 million m³ sob. (Source: Luke)
- Commercial roundwood fellings in 2023 stood at 61.0 million m³ sob in Finland, of which sawlogs amounted to 27.3 and pulpwood 33.7 million m³ sob. (Source: Luke)
- Timber volume is expressed in cubic metres, real solid volume over bark.
- From year 2014 fellings of industry- and state-owned forests are included to standing sales. Earlier private owned-forests are presented separately.



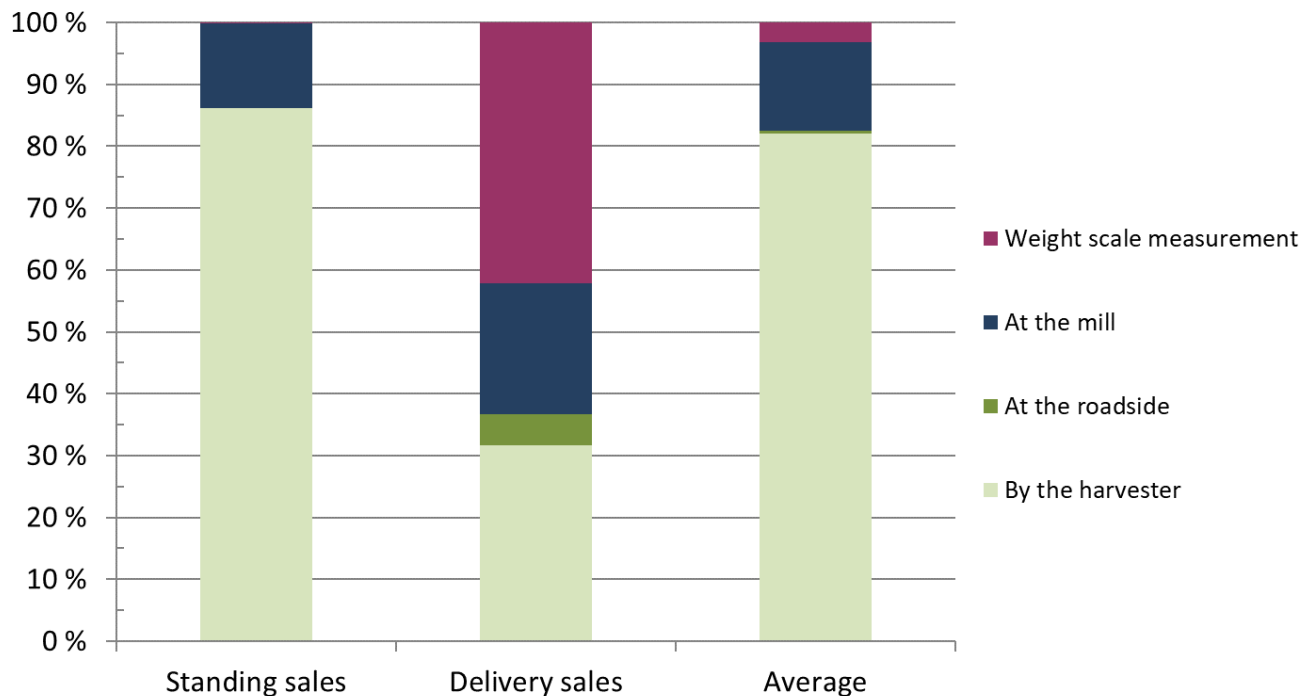
Measurement methods in standing sales of private- and industry- and state-owned forests in 2023 (43.1 million m³)



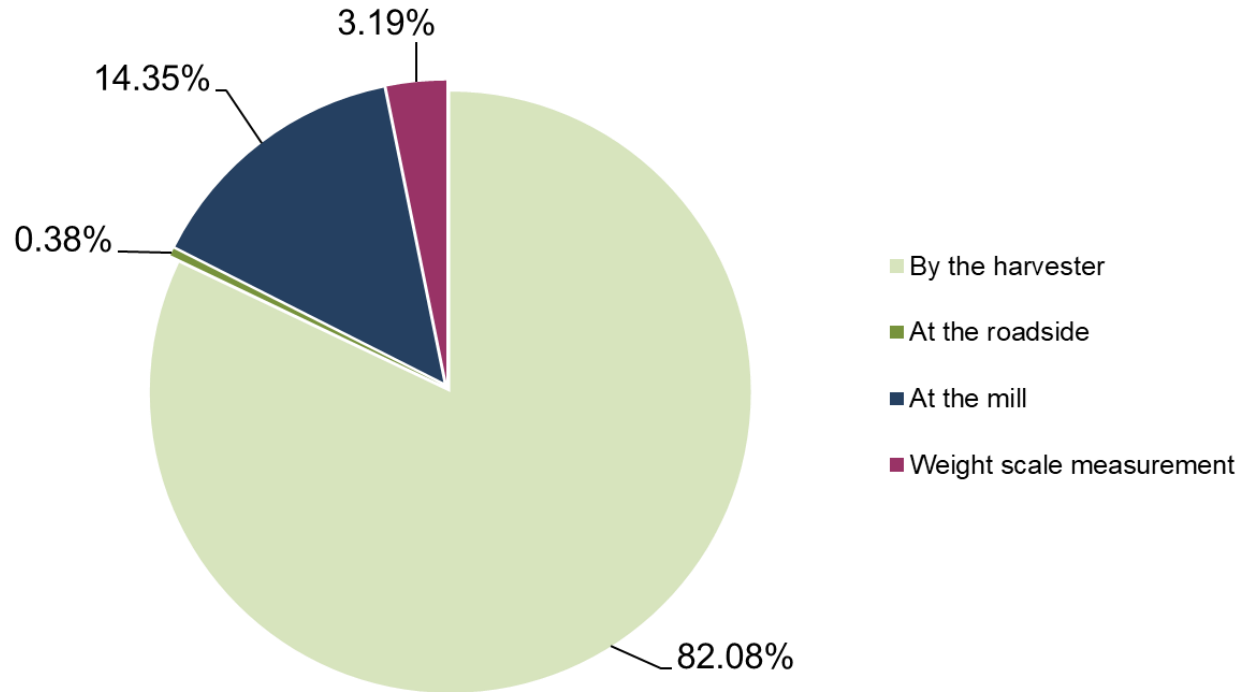
Measurement methods in delivery sales of private-owned forests in 2023 (3.4 million m³)



Measurement methods in the total commercial roundwood fellings in 2023 (standing and delivery sales, 46.5 million m³)



Measuring methods in the total commercial roundwood fellings in 2023 (46.5 million m³)

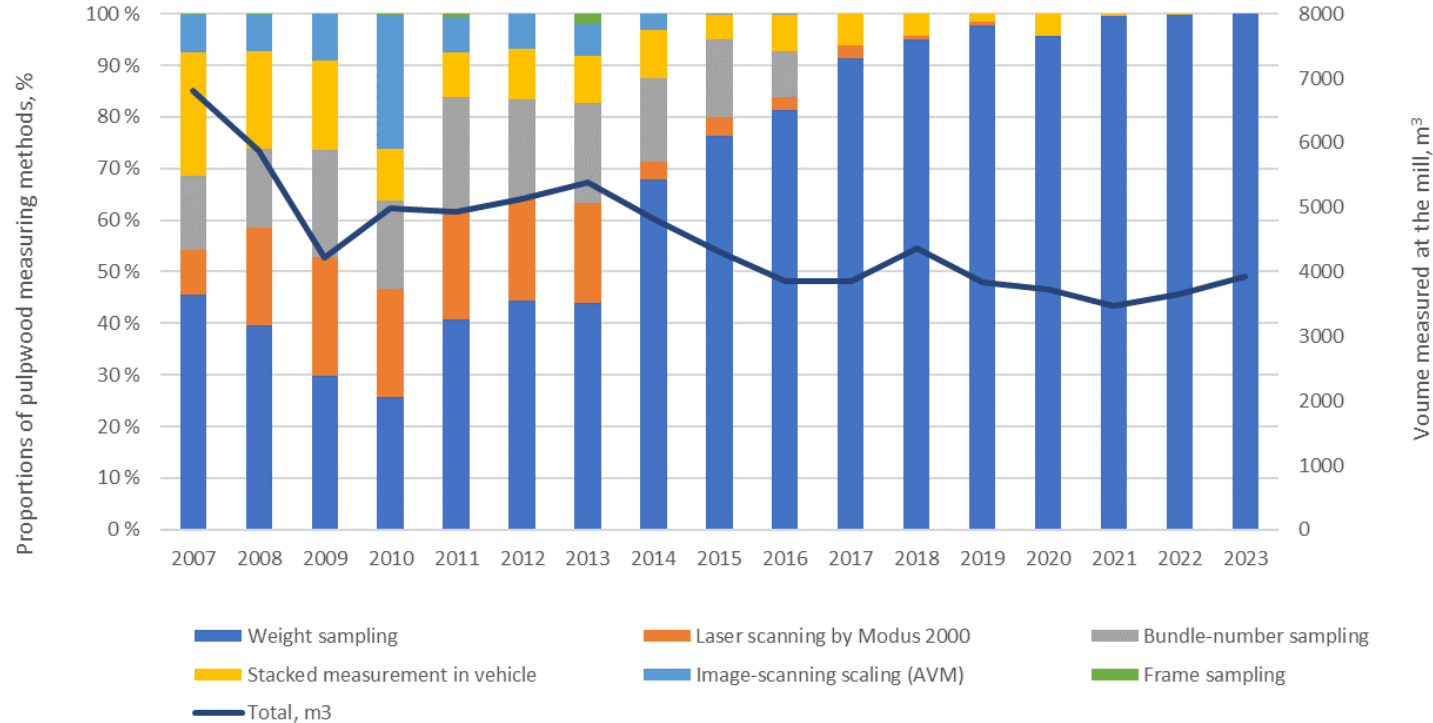


Sawlogs and pulpwood measured at the mill and at the roadside in 2023

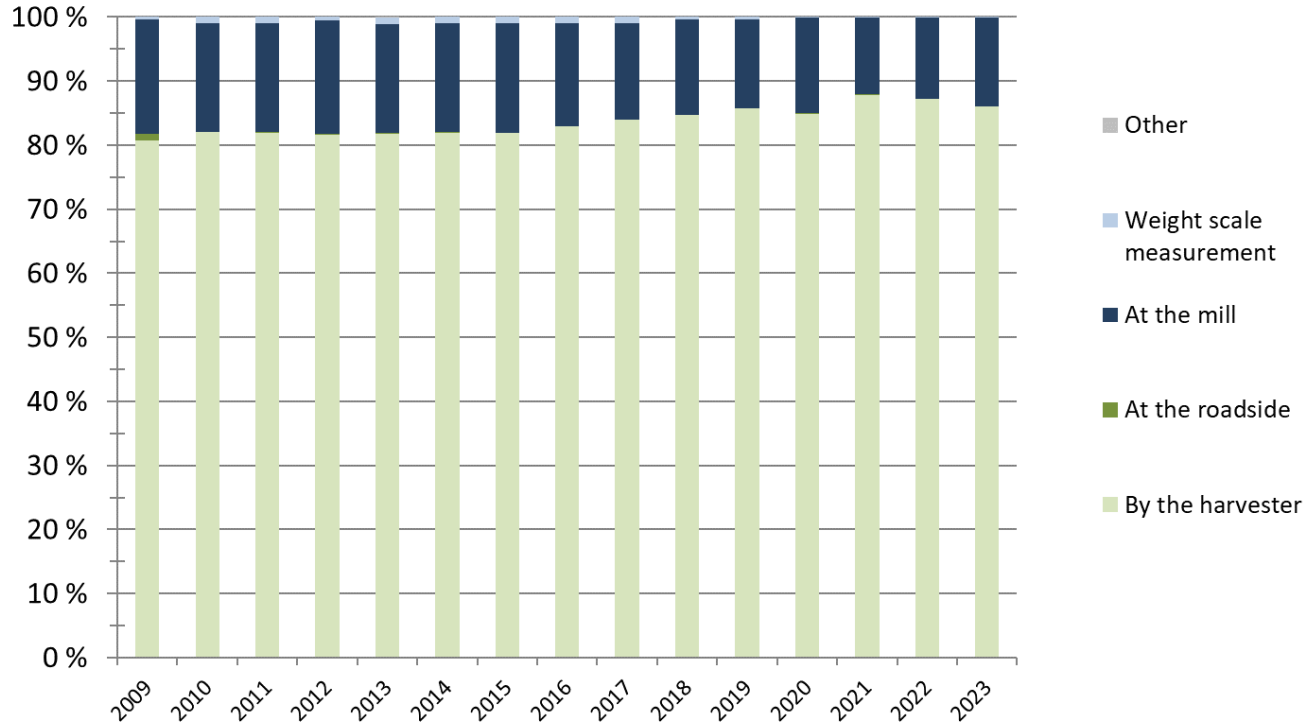
- At the mill altogether 6.7 million m³ was measured, which represents 14.4% of total commercial roundwood fellings in 2023. The proportion of the sawlogs measured at the mill was 32.6% and pulpwood 67.4%.
 - The sawlogs were mainly measured by using log scanners and x-ray log scanners.
 - The main measuring method of pulpwood at the mill was weight sampling.
- At the roadside altogether 0.175 million m³ was measured, which represents 0.4% of total commercial roundwood fellings in 2023. The proportion of sawlogs measured at the mill was 10.8% and pulpwood 89.2%.
 - The sawlogs were measured based on the top diameter of the log and the pulpwood was measured by using pile scaling method.
- Altogether 1.5 million m³ was measured with loader scales, which represents 3.2% of total commercial roundwood fellings in 2023.
 - Loader scales was mainly used in delivery sales (42.1%) and also in some standing sales (0.1%).



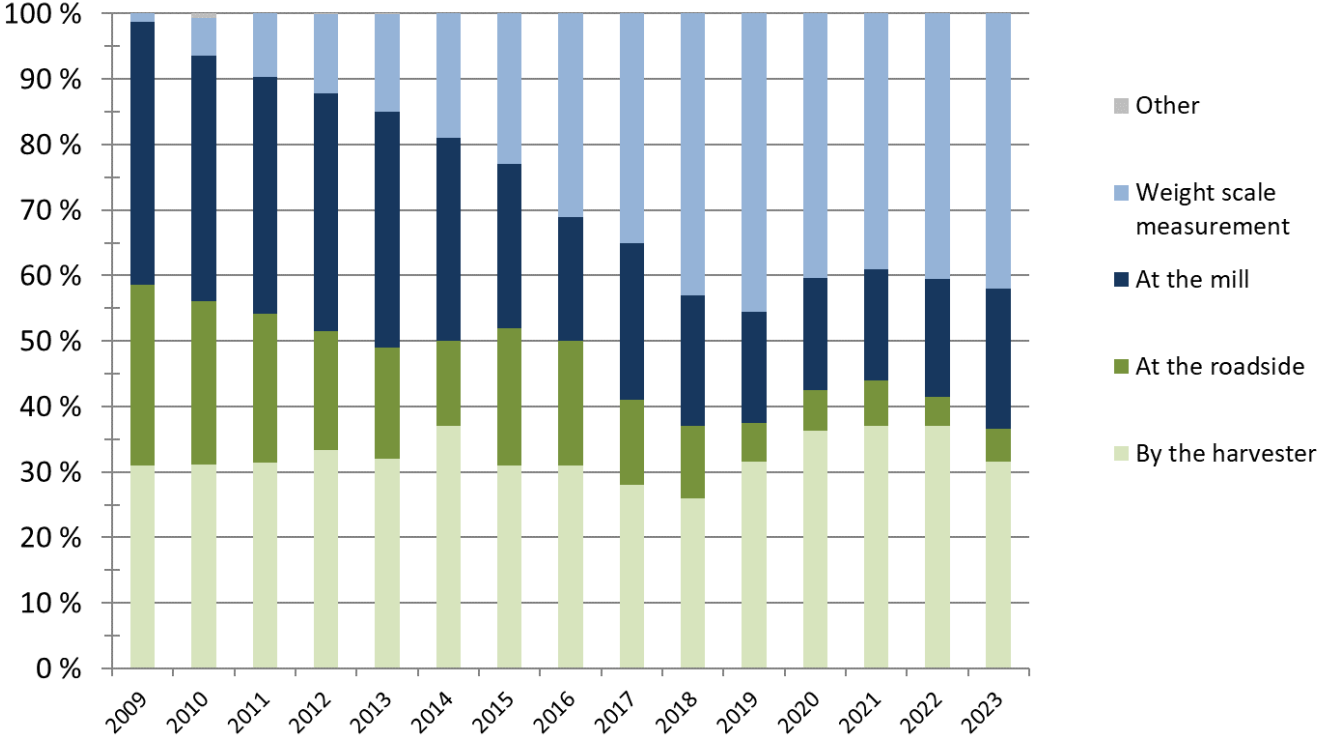
Proportions of different pulpwood measuring methods at the mills, 2007-2023



Proportions of different wood measuring methods in standing sales, 2009–2023



Proportions of different wood measuring methods in delivery sales, 2009–2023



Wood quantities and proportions of methods in the total commercial roundwood fellings in 2023

Private- and industry-owned forests (incl. State forests)

Method	Total, 1000 m ³			Total, %		
	Standing	Delivery sales	Together	Standing	Delivery sales	Average
By the harvester	37 086	1 081	38 167	86.1	31.6	82.1
At the roadside	2	173	175	0.0	5.1	0.4
At the mill	5 948	726	6 674	13.8	21.2	14.4
Weight scale measurement	43	1 440	1 482	0.1	42.1	3.2
Other	0	0	0	0.0	0.0	0.0
Total	43 078	3 420	46 498	100.0	100.0	100.0



Proportions of wood measuring methods, 2009–2023

STANDING SALES OF PRIVATE- AND INDUSTRY-OWNED FORESTS (INCL. STATE FORESTS)

Year	Proportion of method, %					Total
	By the harvester	At the roadside	At the mill	Weight scale measurement	Other	
2009	81	<1	18	0	0	100
2010	82	0	17	1	0	100
2011	82	0	17	1	0	100
2012	82	0	18	1	0	100
2013	82	0	17	1	0	100
2014	82	0	17	1	0	100
2015	82	0	17	1	0	100
2016	83	0	16	1	0	100
2017	84	0	15	1	0	100
2018	85	0	15	0	0	100
2019	86	0	14	0	0	100
2020	85	0	15	0	0	100
2021	88	0	12	0	0	100
2022	87	0	13	0	0	100
2023	86	0	14	0	0	100



Proportions of wood measuring methods, 2009–2023

DELIVERY SALES OF PRIVATE OWNED FORESTS

Year	Proportion of method, %					Total
	By the harvester	At the roadside	At the mill	Weight scale measurement	Other	
2009	31	28	40	1	0	100
2010	31	25	37	6	1	100
2011	31	23	36	10	0	100
2012	33	18	36	12	0	100
2013	32	17	36	15	0	100
2014	37	13	31	19	0	100
2015	31	21	25	23	0	100
2016	31	19	19	31	0	100
2017	28	13	24	35	0	100
2018	26	11	20	43	0	100
2019	31	6	17	45	0	100
2020	36	6	17	40	0	100
2021	37	7	17	39	0	100
2022	37	5	18	41	0	100
2023	32	5.1	21	42.1	0	100

