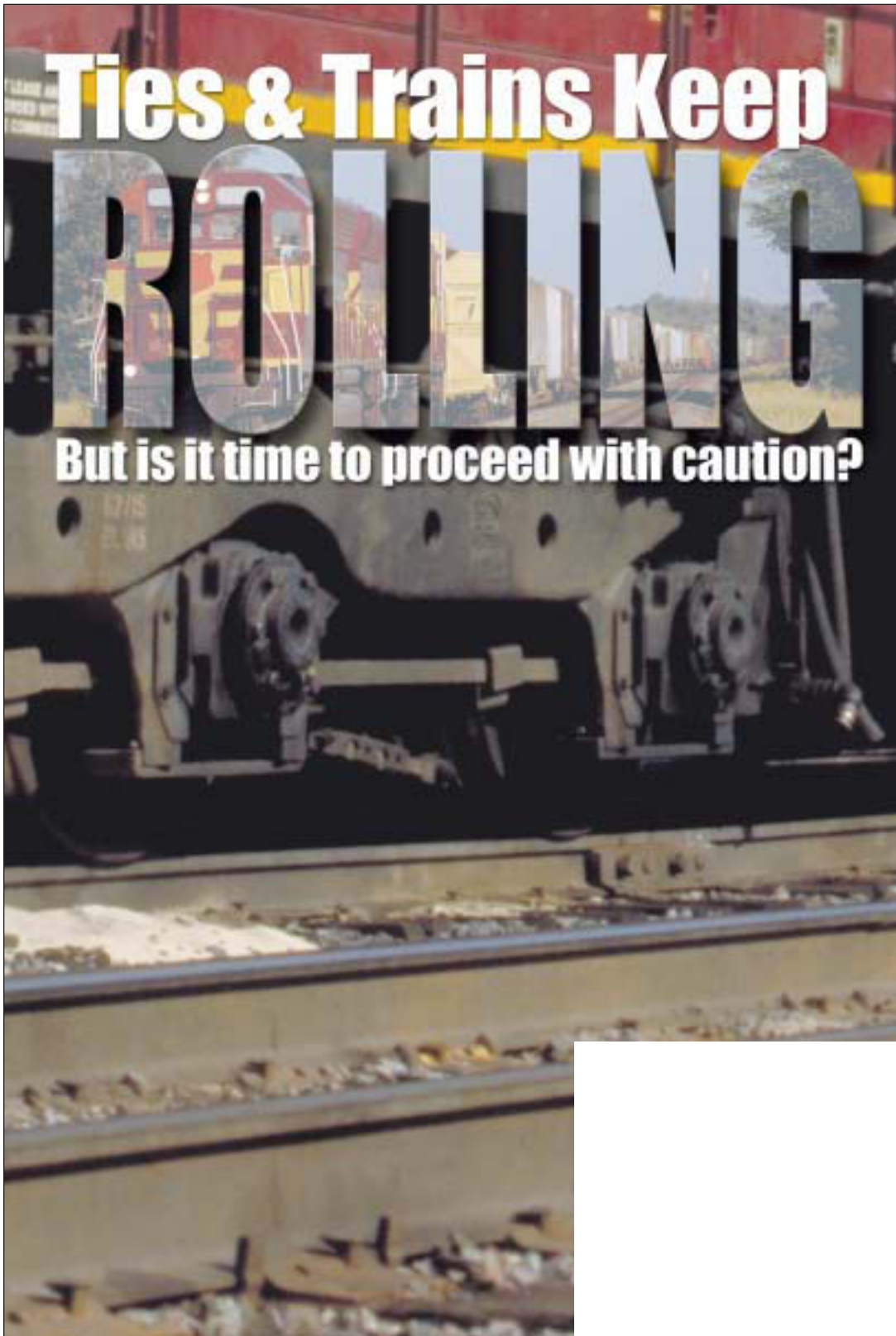


# Crossties

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The Magazine For Producers And Users Of Treated Wood Crossties And Related Products.

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# Ties And Trains Keep ROLLING

## But is it time to proceed with caution?

By Jim Gauntt

From March 1998 to April 2001, the tie industry experienced one of the steepest three-year declines in tie purchases by railroads in modern history (Table 1, p. 11). The period between April 2001 and November 2002 saw one of the largest increases in tie purchases ever experienced over 19 months.

During the former period, producers struggled to work off excess inventory. During the latter, they worked vigorously to increase production to meet the unexpected—but much needed—increase in demand.

While this occurred, RTA was also hard at work trying to develop ways to predict future twists and turns in the marketplace. Through the development and use of econometric models, supplemented by RTA's exclusive industry surveys, and a dash of good old-fashioned experience, better forecasting has resulted.

So what's next? How will producers fare this year? What will the Class 1's and other market players purchase?

In one of the most turbulent times in the rail industry's history for tie purchases, these questions are not easy to answer. But with determination the task has been tackled. RTA's intrepid forecasters press on.

### CLASS 1's

RTA surveys conducted in early 2002 suggested that U.S. Class 1 railroads would push their programs higher in 2003 by 500,000 ties.

This demand for ties is confirmed by RTA monthly inventory and production reports.

Also, the U.S. Class 1's state that their next 12-month requirements for treated ties will exceed 12.2 million ties (October 2002 - October 2003 *Crossties*, "Tie

Trends" section). This is almost exactly 500,000 more ties than were installed in the previous year.

The econometric model developed for RTA, and explained in greater detail in the accompanying sidebar article, predicts that U.S. Class 1's will install 12.4 million ties in 2003.

2003 RTA FORECAST	
	Millions (000,000 omitted)
US Class 1*	12.0-12.4
Canadian Class 1**	1.1 - 1.3
Mexico***	.2 - .3
Short Lines U.S.	2.9 - 3.0
Other (Contractors, Transits, etc.)	.8 - .9
Total Projected Range	17.0 - 17.9
Forecast	17.3

\*Includes Canadian-owned roads operated in U.S.  
 \*\*Canada only track  
 \*\*\*Estimated amount of U.S. ties going to Mexico. The total Mexican market is estimated at approximately 500,000 ties.

So, all the signs point to a continuation of significant demand and production. Or, do they?

All hands have been called to ready stations as the railroads and their producers have put on an all-out blitz to ramp up tie production over the last year and a half. And, by all reports, this has worked (Table 2, p. 11). A look at RTA inventory and production shows that from December 2001 to November 2002 RTA members cranked out nearly 18 million new ties. This is up 18 percent from the same time period the previous year.

This production feat, accomplished by sawmills and the production community, is made all the more remarkable given the current state of the hardwood sawmill community (see article on page 15). But, as the graph illustrates, it has happened before (1987-1988, 1992-1993, 1997-1998), just before multiyear declines in purchases.

Many would argue that things are different now—that no railroad mergers are affecting maintenance-of-way budgets and that railroad finances are healthier now than they were then.

These arguments seem valid. A look at the fundamentals that drive RTA's econometric model say the same thing. U.S. Gross Domestic Product is expected to grow, and Class 1 track miles operated and maintained appear to be stabilizing. Furthermore, railroad purchasing staff, and those in the field procuring the ties, confirm that the spigot is still wide open.

Then, what about those Oct./Nov. 2002 numbers? For the first time since January 2002, the inventory to sales ratio has risen (Table 3, p. 12). And production, at nearly 1.9 million ties in October 2002, is the highest since October 1998, which was just before the big decline mentioned earlier.

Troubling? Possibly. But remember that these numbers only represent two months activity. The market might be peaking, which suggests it is downhill from here. But the figures could also suggest that only a temporary soft spot in demand developed, such as an earlier-than-expected, end-of-the-year pull back in tie gang activity.

There is a much stronger argument that the latter is true. First of all, the current expansion in demand is only 19 months old. Yet, previous increasing demand cycles have usually been multiyear events, with the last one being six years long. Plus, railroads are increasing traffic, which means a necessary increase in maintenance.

Secondly, current railroad financial results look pretty good. When the cash has been available, and with the need for maintenance as extreme as it is, railroads have historically purchased the necessary goods to do the job at hand.

Third, even though inventory-to-sales

ratios still advanced, the 12-month rolling total for purchases continued to increase in November 2002, suggesting the apparent weakness is only a seasonal norm.

But what about the conservative scenario? If a 12.4-million tie year is what we should expect, what is the worst case that should be prepared for?

By the accounts that have been received through recent phone surveys of Class 1 roads, a prediction for an 11.4 million tie program in 2003 is the lowest that can be reckoned. This is only 350,000 ties shy of 2002. So, even the worst would not be too bad.

When all is said and done, 2003 will probably look a lot like 2002. U.S. Class 1 installs likely will push 12 million ties just as they did in 2002. However, producers are cautioned to stay particularly attuned to the next few months of production and inventory data just to be safe.

### A Note About Canadian Class 1 Roads

Yes, ears are burning. There has been all this talk about U.S. Class 1's without a single mention of what is going on north of the border. There's a reason for this.

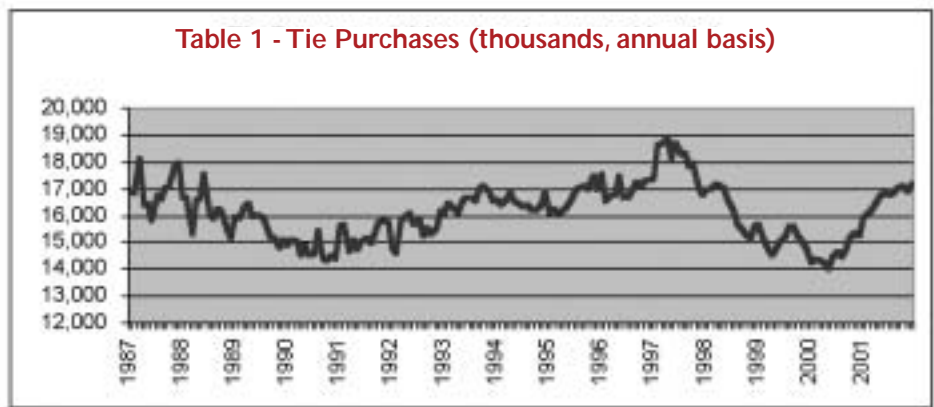
First, the portion of Canadian Class 1 roads operated in the United States, the former Illinois Central and others, for example, are included in the database that is reported in the R-1, a reporting requirement for railroads in the United States.

The data that have been collected in this way has been done so consistently for many decades. And this is the database from which the last 20 or so years of Class 1 data has been used to develop the aforementioned econometric model. So, there is no slight intended when trying to keep all things, including the forecasts, consistent with the data that has proven reliable and consistently available.

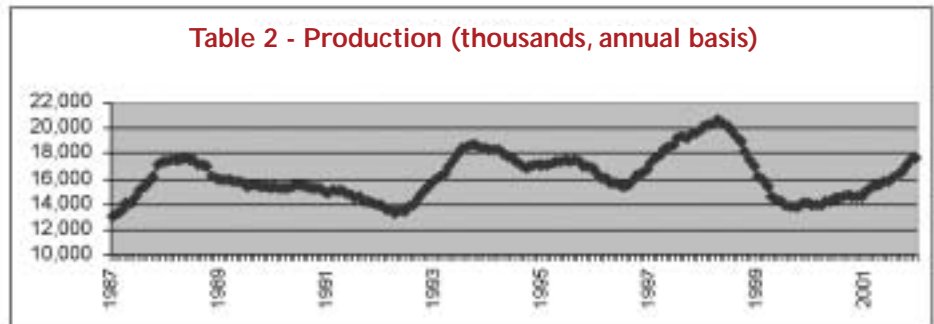
What is expected yonder north? The RTA surveys and the TieTrend data shed a bit of light.

TieTrends reports that Canadian roads expect demand for treated ties to be about 1.65 million ties for the 12-month period between October 2002 and October 2003. Based on this—and backing out the ties likely to make it to the U.S. portions of the Canadian owned-and-operated track (about 550,000 or so)—the Canadian roads will likely install about 1.1 million in Canada.

**Table 1 - Tie Purchases (thousands, annual basis)**



**Table 2 - Production (thousands, annual basis)**



This installation program is roughly the same as 2002. But it could be higher by as much as another 200,000 ties. Recent discussions with those in the know indicate that 1.8-1.9 million ties for Canadian roads is a real possibility. So, again, the worst case for 2003 is no growth. Optimists, however, see a real chance for a 200,000-tie increase over 2002.

### A Note About Mexico

The data available for Mexico's railroads has not been consistent over the past few years. The market has been estimated to be as large as a million ties a year, all the way down to 500,000. Current anecdotal evidence and common sense suggests that the Mexican market for ties is not as large as the Canadian market. Thus, the total replacement and new construction market is probably closer to the 500,000-tie estimate.

What is known, though, is that the market has been increasing over the last few years. Efforts in railroad privatization as well as NAFTA have begun to positively impact the railroads in Mexico. For U.S. producers, this means opportunity exists to be a part of this market as well. While no hard data is available to support this assertion, contacts suggest that as many as 250,000 to 350,000 ties from the United States already enter the Mexican market annually.

### Shortlines, Regionals & Other Markets

Regional and short line railroads have long been significant in the overall market for crossties. Now, in fact, these roads, which operate 50,000 miles of track in the United States alone, account for roughly 28 percent of the market.

RTA surveys from 2002 indicate that short lines and regionals will install 3.7 million ties. Of this, 1.8 million are new grade ties, while 1.2 million are industrial grade ties. The balance will come from relay tie operations.

New grade and industrial tie projected installs for 2003 will be much like 2002. The surveys indicate a slight softening, but the history of these surveys suggests that the projections are always slightly less than what actually occurs. So, expect a rather even year from the short lines.

That is, unless a couple of major events occur. First, if more short lines apply for and receive Railroad Infrastructure Funding money (see November/December 2002 *Crossties*, page 14), many more ties could be in demand. Secondly, if the efforts that have been under way in Washington to secure money to upgrade infrastructure are fruitful this year, even more money could flow to suppliers of maintenance materials.

Even though these two things have been



persistent wild cards the past few years and have yet to make a big impact, they are worthy of this mention for a number of reasons.

The importance of railroads to the U.S. national economy and security in general, is receiving more and more press daily. Legislators are becoming aware of the issues regarding a strong and viable rail network. And, TEA-21, the funding mechanism for all U.S. surface transportation efforts is up for renewal this year.

All this leads to quite a debate on how to best serve the needs of railroads and the nation's economy. The stage is set for good things to happen for short lines in 2003.

Will these good things occur early enough for it to impact tie demand in 2003? Prognosticators say that it is unlikely to happen that fast. But almost all are becoming more confident that funding for short lines will come. It will take a monumental effort, but the stakes are just high enough that suppliers and railroads may finally see the legislative stars align this year.

Getting a handle on the rest of the purchasers in the marketplace is not as easy. RTA has tried to survey the contractor market on several occasions with mixed results. The most reliable way to estimate that market, the transits and other (usually government) users of ties, has been to take a look at overall purchases and subcontract estimated purchases of identified market segments.

### The Complete Picture

So, first, what about 2002? As of the writing of this article, the latest numbers for 2002 purchases are dated November, with a 12-month rolling total of about 17.2 million ties. (RTA currently estimates that only about 100,000-200,000 wood ties are unaccounted for by non-member producers in the United States and Canada, so the total market is estimated at 17.3 to 17.5 million.)

If one then subtracts the U.S. Class 1 usage (11.8 million), the additional Canadian Class 1 usage (1.2 million), ties going to Mexico (350,000), and the short lines and regionals (3 million), then the remaining market is roughly 900,000 to 1,000,000 ties.

This is a number that is consistent with previous research (see January/February 2002 *Crossties*). It is also likely to be a number that can be plugged in for 2003.

Put it all together and the range of new

	Mo/Yr	Tie Production	Tie Inventory	Change In Inventory	Tie Purchases	Annual Purchases Rolling Total	Inventory To Sales Ratio
1998	Jan	1,363	10,283	148	1,215	18,664	0.55
	Feb	1,438	10,340	57	1,381	18,734	0.55
	Mar	1,556	10,018	(322)	1,878	18,936	0.53
	Apr	1,653	10,220	202	1,451	18,098	0.56
	May	1,487	10,182	(38)	1,525	18,667	0.55
	Jun	1,746	10,244	62	1,684	18,275	0.56
	Jul	1,752	10,273	29	1,723	18,355	0.56
	Aug	1,799	10,568	295	1,504	17,838	0.59
	Sep	1,954	11,264	696	1,258	17,966	0.63
	Oct	1,938	11,798	534	1,404	17,066	0.69
	Nov	1,664	12,715	917	747	16,772	0.76
	Dec	1,749	13,284	569	1,180	16,950	0.78
1999	Jan	1,507	13,549	265	1,242	16,977	0.80
	Feb	1,597	13,519	(30)	1,627	17,223	0.78
	Mar	1,854	13,633	114	1,740	17,085	0.80
	Apr	1,320	13,511	(122)	1,442	17,076	0.79
	May	1,267	13,750	239	1,028	16,579	0.83
	Jun	1,539	13,981	231	1,308	16,203	0.86
	Jul	1,189	13,972	(9)	1,198	15,678	0.89
	Aug	1,363	14,009	37	1,326	15,500	0.90
	Sep	1,251	14,178	169	1,082	15,324	0.93
	Oct	1,187	14,089	(89)	1,276	15,196	0.93
	Nov	1,175	14,086	(3)	1,178	15,627	0.90
	Dec	1,007	13,900	(186)	1,193	15,640	0.89
2000	Jan	1,151	14,263	363	788	15,186	0.94
	Feb	1,103	14,153	(110)	1,213	14,772	0.96
	Mar	1,059	13,750	(403)	1,462	14,494	0.95
	Apr	1,038	13,129	(621)	1,659	14,711	0.89
	May	1,191	13,002	(127)	1,318	15,001	0.87
	Jun	1,218	12,636	(366)	1,584	15,277	0.83
	Jul	1,036	12,143	(493)	1,529	15,608	0.78
	Aug	1,385	12,177	34	1,352	15,634	0.78
	Sep	1,280	12,740	564	716	15,268	0.83
	Oct	1,394	13,174	434	960	14,952	0.88
	Nov	1,239	13,473	299	940	14,714	0.92
	Dec	889	13,648	175	714	14,235	0.96
2001	Jan	1,128	13,811	163	965	14,412	0.96
	Feb	1,117	13,839	28	1,089	14,288	0.97
	Mar	1,274	13,719	(120)	1,394	14,220	0.96
	Apr	1,109	13,398	(321)	1,430	13,991	0.96
	May	1,363	13,009	(389)	1,752	14,425	0.90
	Jun	1,213	12,427	(582)	1,795	14,636	0.85
	Jul	1,267	12,315	(112)	1,379	14,486	0.85
	Aug	1,414	12,108	(207)	1,621	14,756	0.82
	Sep	1,147	12,114	6	1,141	15,180	0.80
	Oct	1,415	12,382	268	1,147	15,367	0.81
	Nov	1,226	12,764	382	844	15,271	0.84
	Dec	1,284	12,624	(140)	1,424	15,981	0.79
2002	Jan	1,446	13,057	433	1,013	16,029	0.81
	Feb	1,399	13,118	61	1,338	16,278	0.81
	Mar	1,312	12,760	(358)	1,670	16,554	0.77
	Apr	1,370	12,482	(278)	1,648	16,772	0.74
	May	1,359	11,996	(486)	1,845	16,865	0.71
	Jun	1,401	11,735	(261)	1,662	16,732	0.70
	Jul	1,533	11,751	16	1,517	16,870	0.70
	Aug	1,647	11,602	(149)	1,795	17,044	0.68
	Sep	1,611	12,006	404	1,208	17,111	0.70
	Oct	1,893	12,927	922	972	16,935	0.76
	Nov	1,370	13,174	246	1,123	17,215	0.77

NOTE: The information in this chart is calculated from reported production and inventory numbers by RTA members. This represents more than 95% of the U.S. and Canadian market for wood crossties. Look for an updated production and inventory report in Tie Trends in the September/October issue, where some of this data will be added to existing information.

wood tie demand for 2003 is a low of 17.0 million to a high of 17.9 million. Our best guess? How about 17.3 million? It's a reasonable bet. It's right in the middle of the range. It is virtually the same as 2002

demand. And, because of the underlying fundamentals, if it stabilizes in this way in 2003, the market may have a chance to remain at these levels for a few ensuing years. \$