

The Spreadsheet Trap!

Thomas M. Stockwell

What's Wrong with My Spreadsheet (and why are you on my case?!?)

*I've **got** a record-keeping system – and it's a good record-keeping system! I've been using it for years, and – except now and then when it goes bump in the night – it's perfect! So what if it's on Excel? – Anonymous Winemaker*

Spreadsheets! As winemakers, we may love them for their ease of construction, fast response, and ad hoc, *what-if*, versatility. But if you're using them for long-term, comprehensive record-keeping functions, you've got a problem. And sooner or later that problem is going to bite you, causing you to spend hours identifying the cause, debugging the formulas, and/or recovering from back-up.

The Perfect Spreadsheet Ain't That Perfect

So what's wrong with your spreadsheet? Nothing, actually! In fact, it may be a work of art; a distillation of the key aspects of your record-keeping insight; a testament to your ingenuity.

It's just that spreadsheets were *never designed to be record-keeping repositories*. Especially not for winemakers. They were invented for quick list-making ledgers, much like the pen-and-ink ledger books of old.

But unlike those old ledger books, there's nothing permanent about spreadsheets. Anyone can accidentally change the contents quickly and surreptitiously, corrupting formulas or data, and then exiting the file without a trace. For inconsequential data, or for the amateur winemaker, maybe this is an acceptable risk, but for permanent and professional winery record-keeping, it's a serious liability. This is especially true if your spreadsheet is to be used for TTB/ATF documentation of blending, inventory movements, and chemical additions. Why?

A personally constructed spreadsheet that contains proprietary company records is a spring-trap waiting to go off. Only you know how its formulas work and their limitations. But what about the next winemaker who follows you? What about other people; the people with whom you share this data? Do they understand those limitations?

“Who's been messing with my spreadsheet?”

When people see a spreadsheet, they instinctively believe they can “play around” with it, making small changes, or constructing pivot tables, to better reflect their personal interest in the data. Then they make their own decisions, based upon that information.

Yet all it takes is one errant keystroke in a key data cell to change the results of an embedded calculation. That calculation may cascade through numerous workbooks, across multiple spreadsheets. Or – if spreadsheets are linked – that change may ricochet throughout your permanent record-keeping system. And while it's true that these

vulnerabilities *can* be managed through careful spreadsheet restrictions, the implementation of custom security destroys the transparency, ease-of-use, and the very versatility that makes spreadsheets so valuable to us.

When Good Spreadsheets Go Bad!

You know this, of course. And so you take care to ensure it doesn't happen. (Backing up that spreadsheet on a regular basis, right?!?) But, chances are sooner or later, something *will* go “bump in the night”, and then Well, you know the routine!

1. Ask everybody “Who changed the #@### spreadsheet?!...”
2. Spend minutes, hours, or days debugging the formulas.
3. Try to determine *when* the alteration occurred.
4. Check to make sure you have the right, uncorrupted backup.
5. Restore the file.
6. Re-enter missing data
7. Etc.

Hey, it happens more times than you might think.

The Database Dilemma

So what about databases? Are databases really better than spreadsheets for record-keeping? Well, you know of course they are.

There's only one problem with off-the-shelf generic databases: How do you make them as functional, intelligent, and intuitive as your very own custom spreadsheet?

The answer is that somebody has to build them. And there's the rub: You're not paid to be a programmer. It's not your job, and your boss doesn't want a programmer. He wants **you**, providing the value that is needed by your expertise as a winemaker.

Functions Needed by the Winemaker

This raises an important question: What does a winery really need for record keeping? Of course, each winemaker has a unique perspective on his/her *personal* needs, but the Federal TTB/ATF has set the baseline for compliance purposes. We are required, at the very least, to keep track of:

- Every lot of wine identified by lot number.
- Every chemical addition including the rate of addition and the associated lot number.
- The percentage (weighted averages) of lots within blends or sub-blends.
- Lot numbers of glass, corks, and capsules used in bottling.

Most importantly, should you be audited by the ATF, you need a *clear* record – by date and function – of what has transpired in your cellar.

You *can* create such a system with a spreadsheet, but it's not as easy as you might think. Furthermore, developing reports to be used by ATF auditors can be a nightmare and not something you want to try to develop on your own.

Wouldn't it be better to get a real wine-making record keeping system? One that is *transaction-based* and designed to manage the multitudinous record-keeping of analyses, chemical additions, and lot movements? Unlike a spreadsheet, a transaction-based system would enable you to quickly retrieve individual dates, results, or analyses in a manner that ATF could utilize during an audit. Moreover, a transaction-based system would allow you to generate reports *vertically*, for vintages across years, to compare blends for particular qualities. In other words, a transaction-based system could better deliver the information your winery needs in a safe and secure manner.

Winery Record Keeping Choices

But if spreadsheets are the wrong solution to winery record-keeping, what are your choices? Generally they fall into four basic categories:

- **Roll Your Own Database:** Spend untold thousands of hours building a database with all the bells and whistles that you've already created in your model spreadsheet.
- **Hire a Programmer:** Spend tens of thousands of dollars hiring a programmer to mimic the functionality you've already created on your spreadsheet.
- **Purchase a Custom Database:** Spend tens of thousands of dollars buying a winemaker's database solution, customized to your specific needs.
- **License a Package Designed for Winemakers:** Use a solution specifically designed and built to wine industry standards, securely housed as an on-line service, supporting other clients with similar requirements.

Each solution has its advantages and disadvantages. *All* represent a better approach for winemakers than spreadsheets. Why? Because they're all designed as permanent repositories of information. All are transaction-based. All use some form of real security to help prevent unauthorized modification. And all are designed for the winemaker's efficiency.

Build on Your Success

So what's wrong with your spreadsheet? Nothing, except that it's *only* a spreadsheet! And spreadsheets aren't record-keeping systems.

But you can use your experience working with winery records to understand what your organization really needs. Then you can capitalize upon that spreadsheet experience and knowledge to help you choose the **best** solution for your record-keeping.

After all, that's what your talent as a winemaker needs: A tool to document your successes in making wine, harvest after harvest, barrel after barrel, lot after lot, vintage after vintage. Then who needs a spreadsheet that goes "bump" in the night?

About the Author

Thomas M. Stockwell is an independent IT Analyst with more than 20 years of experience in the wine industry. He is a former Information Systems Engineer for the Robert Mondavi Winery and the former Director of Information Systems at Sutter Home Winery. He can be reached for comment at www.ITIncendiary.com.