**The Seven Waste Identification List - FOR WINERIES**

| **Waste** | **Identified Wastes** |
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| **Overproduction** | * Pumping wine too many times to manage inventory
* Poor systems – i.e. chilling causes slow flow rates
* Excessive sample testing and repeats of the same wine in different parcels
* Collecting tasting samples that do not get tasted
* Dual sign off for a clearance of a product – it takes time to get these clearances the this doubles the work
* Blending prior to customer demand – this reduces future flexibility
* Over blending resulting in more breakdowns
* Wine in tank for too long before going to customer
 | * Producing extra cases of wine to cover forecast
* Producing extra cases of wine to cover sporadic demand
* Producing more juice-in-tank and must-in-tank than required based on projected demand, (due to contracted grape tonnages over vintage).
* Trying to fill wine volumes in poor years (low grape supply) due to existing contracts – can produce lower quality wine to fill orders
* Sectored KPI’s working against other winery areas (i.e. sales ‘selling’ more wine than can be produced)
* Infrastructure not set-up for small batches resulting in large volumes being processed
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| **Transportation** | * Process streamlining – we could minimise transportation by adding as many active process to the single movement as possible
* Goods delivered in the wrong place requiring later transport
* Storage of finished goods off site
* Mtc – Storage racks for machine change parts are not located close to the machine. This means we need to move these parts long distances. It would be better if these were closer to the machine. It would also be good if we could organise and labelled these parts for easy identification and access.
* The dry goods store and warehouse are congested resulting in excessive searching and transport to get to the correct equipment
* Need a closer place for rack and return
* We have two forklifts so we do lots of movement instead of planning and reducing movement
 | * Moving barrels to get the ‘right’ barrels
* Transport between wineries
* Location of fuel tanks at a great distance from use areas
* High movements from winery 🡪 bottling 🡪 storage 🡪 winery 🡪 customer
* Small bottling runs = more transport per unit
* Transferring finished wine to storage tanks
* Transferring finished wine onto tanker, and
* Transport to off-site bottling facilities
* Transportation of grape marc to offsite facility
* Warehousing (movement of finished wine to and from warehousing facility)
* Transportation and movement of product for sales events such as trade shows (including return of un-sold product).
* Taking samples to off site labs
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| **Motion** | * Walking to collect equipment from all over lab
* Winery setup – relay poor flow and movement through winery
* Walking around the plant
* Mtc – Having tools at hand for working on a machine i.e. tools located with the machine, not in a separate area.
* Mtc – Having a tools caddy or tool kit for a particular set of jobs
* Cataloguing change parts for boards
* Walking from the lab to other side of plant
* Poor planning leading to excess walking
* Looking for cellar staff – they are sometimes hard to track down and we need them for decision making
* Searching for fitting during vintage. Need to train staff to put them back
 | * Searching for tools and fittings
* Walking to the tool storage areas
* Staff travelling to and from interstate meetings
* Walking from wineries to office / lab to collect information
* Double-handling of materials and paper work (walking back and forth between lab and winery)
* Production staff walking to the office to obtain production information (rather than having the information accessible in the production area and updated daily).
* Walking to phones and computers
* Walking to get paperwork signed
* Trying to find winemakers
* Walking to get results
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| **Waiting** | Waiting for...* clearance approval for production
* info to move onto next process
* wine to be cleared for packaging so work can commence
* Wrong documentation - this stops the line and causes waiting
* dry goods – change program, extra packaging size changeover
* tank blend details from winemaker and cellar
* Not ordering stock ahead of need and causing consumables to arrive
* decisions form above
* operations to signal for us so we can do our job
* info from work orders so we can undertake tasks
* specialised parts to arrive
* Forklift availability
* production
* maintenance to fix things
* Maintenance parts to arrive so they can fix things
* Waiting to talk to the right people
* Too many meetings
 | * winemakers to answer production- and quality-related questions
* equipment to be fixed
* Sales staff wine to be bottled, particularly if bottled off site
* Tanker wine to be ready for loading (i.e. for off-site bottling)
* lab test results (quality testing)
* Accounts department winery to have their books up to date by the end of each month
* accurate forecasts
* antique computers to finish loading
* cellar door customers to arrive.
* data (need real time monitoring)
* slow equipment to finish
* product information sheets
* Decision making
* Real-time data needed
* transfers
* press cycles – huge bottleneck
* Waiting to find out schedules – can’t we have access to schedules list?
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| **Over-Processing** | * Excessive sample collection when samples are not used
* Collect samples for ‘just in case’ activities
* Logging data into multiple database systems essentially duplicating data entry. Can’t this be done automatically?
* Sometimes we seem to be capturing way too much information that is not used or needed. But when we do want to know important information or a trend in a machine, (i.e. to see how long a part lasts), we can’t get any meaningful or useful information
* The process of centrifuging then earth filtering should be able to replace with x flow
* Blanket wide company emails – go through 50 emails a day that aren’t relevant for me
* Needing multiple authorisation steps
* Needing to move wine multiple times because winemakers change mind
* Excess filtering ‘just in case’
* Really bad planning leading to poor work-flow. System should be more streamlined
* Needing to change workflow to accommodate for last second changes to schedule – takes hours to replan!
* We blend way too much for too little gain
 | * Putting wine in barrels just to keep the barrels wet
* Over-processing of paper work
* Not knowing the market, therefore complying to all potential customers
* Wine production finishing steps (such as filtration) are repeated or excessively conducted due to lack of formal or standardised monitoring/quality checks
* Critical equipment (e.g. refrigeration systems) running harder than they need to in order to meet the minimum acceptable product specifications
* Use of manual administration systems leading to complex and duplicated paper work, rather than making use of centralised customer relationship management systems (e.g. EzyWine, TallEmu) to provide a whole-of-business management package.
* Lack of standardised order numbers or types (i.e. large variation in customer orders, both in volume of wine and type of wine)
* Use of packaging (e.g. high-quality boxes) in circumstances when packaging isn’t required (such as in cellar door wine sales)
* Overly complex administration – historical methods – we should have streamlines this
* Filtration – white typically requires one pass but sometimes can take multiple passes.
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| **Inventory** | * Chemicals going out of date before use because we’ve ordered too much
* Monitoring additions / clearance product to avoid being out of stock
* High levels of dry goods due to 13 week forecast to get product (i.e. DAP)
* Inventory consumption not tracked – i.e. we know how much stuff we have ordered, but we don’t know when we are using it – therefore we don’t know when we run out until we run out
* Lack of dedicated space for goods – struggle to find items when needed – accidentally order more items because we can’t find them
* Too much ‘safety stock’
* Big bulk wine inventory – sit on it for too long. Need to get it out and sold
 | * Over ordering to get price down
* Business cards – changing
* Over forecast
* Stock ordered well ahead of need
* Overproduction leading to significant levels of inventory – have to buy a certain amount of fruit regardless of quality
* Excessive levels of wine labels (old, out-of-date wine labels that are no longer useful)
* Additional materials (e.g. additions or spare parts) ordered well-beyond the amount needed in the near future.
* Over-ordering to get lower prices
* Business cards changing
* Stock ordered well ahead of needs
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| **Defects** | * Faulty equipment or equipment not calibrated resulting in rework
* Sending wrong stock
* Bring maintenance personnel up to the same standard so that repairs done by anyone are fixed permanently and don’t just have bandaid repairs
* Re doing Filtration
* Needing to re-sample tanks when results look odd
* Incorrect blends due to incorrect forecast
* Poor maintenance creating rework / breakdowns
* People don’t always have a ‘care factor’ and as a result defects increase
* The poor training of operators can cause defects and problems which then creates rework
* Sometime have repeat defects because we haven’t addressed the cause
* Poor training leading to poor decisions
* Wine sent off site out of specifications
 | * Re-labelling of bottles
* Bottling re-work
* Sending wrong stock
* Repeating filtration
* Poor maintenance of stock on hand system – should know exactly what we have always through roders without needing to count every few months.
* Changing label styles continuously
* Credits and re-invoicing due to poor information
* Outside customer specs
* Chemical quality
* Poor fruit quality leading to increased effort to convert into a saleable wine
* Having to re-do jobs in the winery, such as filtration and stabilisation (if standard filtration practices and monitoring haven’t been adhered to and stabilisation has not worked properly)
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