SUMMARY:

WineWorks, in our role as your bottling partner, views itself as an important extension of your own organisation.

Part of our role is therefore to keep on top of what is happening in the world of wine packaging, and help you enter new market niches if that is your wish. Some of these niches may require alternative packaging formats. We are an R&D department for you if you will.

We do not recommend any one of these, the purpose of this is to provide you with a guide as to what is possible, what is practical, and what your opportunities are. Please discuss them within your organisation, and potential customers, and then speak to your WineWorks plant manager to determine the next steps.

- **Bottles:**
  - Glass Bottles: 2
  - PET Bottles: 2
  - Paper bottles: 2
  - Aluminium Can / Bottle: 3

- **Flexible Packaging:**
  - Tetrapaks: 3
  - Pouches: 3
  - Bag-in-Box: 4

- **Single serve:**
  - 187 ml: 4
  - Bottle/Cups: 4
  - Cluster Packs: 5

- **Closures:**
  - Permeable liners for screw caps: 5
  - Cork: 5
  - Zork: 6
  - Vinolok: 6

- **Labelling Technology:**
  - Label orientation: 6
  - Sleeving: 6
  - 4 head label capability: 7
  - Resin labels: 7

- **Kegs:**
  - Returnable kegs: 7
  - One-Way Kegs: 7
GLASS BOTTLES

The focus of the glass industry worldwide has been reacting to the increasing requirements by markets particularly European or Canadian, for a reduction in the weight of glass packaging.

The weight of the traditional bottle we once used was, on average around 565g, this has now been reduced by 26% to 420g or less.

Some manufacturers are producing, through a different bottle forming process, 750 ml bottles as light as 300g, for similar cost to the 420g. These are available currently ex Australia, are very limited in terms of style and colour – they also require changes to your packaging.

Weight savings have not only affect cost in most cases, but also carbon footprint & freight reductions.

PET BOTTLES

PET bottles provide more positive market acceptance in comparison with most of the other alternative packaging solutions. It is already being used both on airlines, and for events catering. Its advantage is in the minimal change in appearance from glass, while providing some benefits through weight and other environmental factors. Savings are largely via a reduction in carton sizing by approximately 20%, and lighter bottle weight, resulting in reduced cost per case when exporting.

The issue of oxygen permeability through the PET wall has been addressed with the use of oxygen scavenging technology added to the wall of the bottle.

The savings are in reduction in carton sizing by approximately 20%, and reduction in the weight of bottles. This reduces the cost per case when exporting.

Pack Sizes: 187 & 750ml in Burgundy and Bordelaise

Possibility: Marlborough plant currently fills 750 ml, and Hawkes Bay plant currently fills 187ml

PAPER BOTTLES

Bottles that have a paper outer, and an inner bladder of foil or plastic, are now being produced in Europe and the US. It thus is similar to a bag in box.

It weighs around 1/10th of the weight of a glass wine bottle — 55 grams vs. 500 grams, and has corresponding ecological credentials, and because of the more traditional appearance seems to have wider acceptance than a bag-in-box.

These bottles are not yet being used in the NZ market, but we would be very happy to trial them. It should be noted that they generally do not use a 30x60mm screwcap, but rather a 28mm ROPP closure, and therefore may require further investment in capping head technology by WineWorks.

Shelf life of the filled product is expected to be somewhere between 6 and 12 months, depending on the barrier properties of the internal lining.
ALUMINIUM CAN / BOTTLE

Wines have been available in aluminium cans for several years now, in varying capacities. They are promoted as an easy to transport, picnic style package. The can is internally lined with plastic to prevent contact with the metal, and the can is pre-printed. Whilst more costly than some other packaging solutions, aluminum is lightweight and recyclable, so has some environmental credentials as well as potential freight savings.

Despite a highly visible launch several years ago, there appears to be little support in the marketplace for this type of packaging. Barriers to entry can be production run size, and a lack of independent filling facilities.

Possibility: Should you wish to consider the can solution, we can work through the process with you via our relationship with a contract can filler.

FLEXIBLE PACKAGING

TETRAPAKS

Tetrapak is a safe, clean, and commonly accepted liquid package. The market understands its use though juice and milk markets.

Tetra Paks are predominantly made from recyclable paper board, sourced entirely from renewable growth forests, as well as recyclable polyethylene and aluminium foil. This provides an inert container that will not alter the flavour profile of your wine in any way, with an oxygen transfer rate less than a good synthetic corked bottle, but greater than a screw cap.

Possibility: There is currently no wine filling capacity in New Zealand for this pack. A colleague contract bottler in Australia had a machine for a lease term of three years that was commercially unsuccessful, and the machine was returned to the manufacturer. In order to invest in such machinery we would need to be certain of a number of committed customers with committed markets.

POUCHES

Pouches are a new concept and a major departure from the traditional shapes of bottle or bag-in-box. This lightweight solution ticks the box for a number of environmental factors.

The pouch is pre-printed and can also be fitted with different closure styles depending on the market that you are targeting. A recent innovation is that of the single-serve pouch, seen at bottom right here.

This pouch has been used commercially in Australia but there is currently no wine filling capacity in New Zealand for these packs.

Possibility: Pouches require specialized filling equipment sized for each different type of closure. Note there are three different types of closure on these pictured pouches – these would require three different machines.
BAG-IN-BOX

Bag-in-box has been in the NZ domestic market for a long period of time, usually using imported wines. Some packages in smaller capacities have been seen in the NZ market, in 1.5 and 2 litre.

However this is a viable alternative to glass in the packaging market at the moment, because there is a ready market, and the technology is well proven.

Possibility: WineWorks is keen to install a bag-in-box line, if there is sufficient support amongst our customers for using it. Economically speaking, it needs to be reasonably large scale, as this is a low-margin domestic product. The shelf life of bag-in-box means that exporting is a risky business.

SINGLE SERVE

Single Serve is a market all of its own, largely catering to airlines, outdoor events & such occasions as boating, tramping or picnics.

187 ML

These bottles are already a feature of the New Zealand market. They are manufactured in Auckland, and are readily available, with the proviso that they are filled within a month of manufacture, and consumed within 6-12 months.

Possibility: Hawkes Bay plant currently filling this bottle

BOTTLE/CUPS

There are several styles of packs that double as a cup, among them are Stack, Soulo, and there is even a form of 187ml bottle with an integral glass that fits over the top (shown here as the Hardy’s Shuttle).

Possibility: Hawkes Bay can fill the 187ml bottles-with-glass, but the others require a special filling machine with a heat-sealing device to secure the foil lid.
CLUSTER PACKS

Small format bottles are often sold in multiples of 3, 4 or 6, often referred to as cluster packs. The use of the crash lock packaging is popular, and these can easily be packaged by hand. Hand packing is flexible, as it allows for more options when small bottling runs are required.

Here are some examples of various packs common in wine. These packs are being used for packs from 250 – 500 ml.

Further cluster packs are common for wine cooler or cider type packs, and these are called either crown-through or neck-through cluster packs, depending where the pack actually holds the bottle.

Possibility: WineWorks Hawkes Bay packages into many different styles of cluster packs

CLOSURES

Screw caps now make up at least 95% of all closures we apply at WineWorks. It has, since 2002 been the closure of choice to most wineries.

So…what advancements have been made, or realistic alternatives are there?

PERMEABLE LINERS FOR SCREW CAPS

Stelvin has recently introduced a new range of screw cap liners that are designed to allow a controlled amount of oxygen to be transferred into the wine. This is in response to some areas of the wine industry looking for these opportunities to age wine while still using the security of a screw cap.

It should be noted that these closures are initially manufactured in France, so there is a longer lead time to consider.

CORK

The cork industry has done a large amount of R&D in the last decade. This has resulted in a number of new, innovative cork based products on offer to the wine industry. The most practical of these technologies is the technical cork, where the original cork is ground into particles, then treated to effectively remove all TCA. They are then reconstituted and extruded into standard size corks, TCA free and ready for printing, treatment and use. Brands featuring this technology are Diam and Amorim’s Neutrocork. Most of the manufacturers of these closures guarantee taint free corks.
**ZORK**

This Australian company manufactures two types of closure, STL for still wine, and SPK for sparkling wine. This is a plastic closure, with an oxygen barrier and a liquid barrier built into the closure. Both of these closures are re-sealable.

Possibility: WineWorks applies these closures in our Marlborough and our Hawkes Bay plants.

**VINOLOK**

Vinolok is a glass stopper with a seal. The closure previously required a specific bottle type, but this has now been modified to be able to be inserted in a standard cork bottle, which has reduced the entry cost significantly.

These are a technically excellent seal that has gained some penetration in Australia, with the like of Henschke using them.

They come in three standard colours, clear, black and pink.

**LABELLING TECHNOLOGY**

**LABEL ORIENTATION**

We are installing labelers with the ability to orientate the label against a variety of parameters. Orientation against the seam (especially good for clear labels, ensuring no bubbles below the label), orientation against the cap (ensuring your cap and label line up for maximum shelf presence)

This orientation can be completed for you with a minimal increase in cost whilst providing maximum impact.

Possibility: This is available in Marlborough & Hawkes Bay and shortly in Auckland

**SLEEving**

We have the capacity to sleeve bottles. This is done by applying a preprinted PVC tube over the bottle and then transferring through a steam tunnel to shrink the tube onto the bottle.

The capability has some constraints with a max diameter of 100mm, and a max height of 300mm

This can be done after filling with minimal temperature increases in the product.

Possibility: This capability is in our Hawkes Bay plant.
4 HEAD LABEL CAPABILITY

Also with our continued investment in labelling technology to meet our client’s needs, we have some capability to apply 4 labels, front, back and 2 x medals or neck (cigar-style) labels

Possibility: This is available in Marlborough and Hawkes Bay

RESIN LABELS

On a recent trade show visit in Italy we found this new possibility. The resin labels look similar to a wax type seal reminiscent of a bygone era. The 3-dimensional nature of this wine means it is a guaranteed attention-getter

They come on rolls for a minimum volume and therefore can be applied on line by WineWorks.

KEGS

RETURNABLE KEGS

There is an increasing level of use of stainless steel kegs as a closed-loop delivery system to winery customers such as by-the-glass retailers or restaurants, and the wines delivered. The kegs tend to be smaller 25 or 30-litre versions of beer kegs, for ease of bar staff handling them. After the keg is empty it is returned to the winery where it is washed, sterilized and refilled, to be returned to the retailer. The advantage is that there is no consumption of packaging. There are 2-way courier fees and washing costs, but they are all less than the cost of bottles. It also creates a binding tie to the customer. Keg wine is currently mostly a local phenomenon because of the logistics of recycling and reusing the kegs, which is the key to the whole enterprise.

ONE-WAY KEGS

One-way kegs give a high-quality, single-use one-way delivery system that eliminates the need to return the keg to the winery. It is a preformed, nitrogen filled pet cylinder (similar in principle to a PET bottle). This container is generally contained in a cardboard outer, either round or square. They are available in 20 or 30 litre, but there is a 5 litre version under testing at the moment.

Possibility: These kegs have already been filled at all WineWorks plants, and we have strong interest from others. We have the specialised valves now to be able to do this.