

# MATRAVINA

Autumn 2006

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- Your timeline for certified grapevines



Throughout the summer, Chris Wright marks "rogue" vines that show atypical characteristics to ensure the wood will not be used in grafting.

## All in the timing

### How we find the vines you want

Wouldn't it be great if you could call Riversun, order some certified grafted vines, and see the delivery truck pull up at the vineyard gate the following morning? In the real world, nursery timelines require orders to be placed well in advance. Ensuring enough of the right material is sourced, checked for trueness to type, and virus tested – all before grafting begins – involves logistics that wouldn't be out of place in a major military campaign.

"From locating material to customer delivery actually takes the better part of two years," notes Chris Wright, source material manager at Riversun. "Late orders can sometime be filled, of course, either by stock

on hand or by contracting and certifying propagation material from other suppliers, but we hate to see customers disappointed simply because they didn't get the timing right."

For the majority of orders, however, grafted vines cannot be purchased off the shelf. For every request placed with the nursery, Chris and his team have to find the material – and that involves scouring practically every wine-growing region in the country. In addition to Riversun's 25 hectares of "Premium Plus" scion wood and rootstock, the nursery maintains contracts for "Premium Mass" source material with carefully selected vineyards throughout New Zealand.

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# From the top

by Geoff Thorpe

Managing Director

Many of you who attended the Romeo Bragato conference in Gisborne last year had the pleasure of hearing Peter Biggs's inspirational speech concerning the importance of "telling your own story."

Ironically, Riversun had a chance to "walk the talk" at the nursery workshops held each afternoon during the conference. The overwhelmingly positive feedback we received from participants underscored, for me, the power of Peter's message.

That's why I was eager to hear Peter again at the International Cool Climate Symposium held in Christchurch earlier this year. As managing director of a

leading marketing communications agency and chair of the Arts Council of New Zealand, he clearly knows what he's talking about. This time around, it was another message that struck home – that of building resilience within your company so that it can withstand (and even thrive) during periods of unprecedented change.

I think it's fair to say that the New Zealand wine industry has undergone "unprecedented change" for most of its existence. Exponential growth in the vineyard area throughout the previous decade had experts predicting an inevitable downturn in the demand for nursery stock – yet instead, the market remains very strong, with millions more vines being planted each year.

Since the late 1990s, however, Riversun has been strengthening

its resilience in a variety of ways. Our focus on vine certification was born, in part, from the belief that high-quality material would help to differentiate our products in a buyers' market. That, in turn, demanded a reinvestment in infrastructure that has witnessed the creation of a plant importation programme, expansion into other horticultural crops, and the establishment of a state-of-the-art laboratory facility for the range of services offered by Linnaeus.

At times, it has seemed like a very big gamble to pour so much of our revenue back into the business. But resilience brings its own rewards, and, in recent months, we have had the luxury of learning a very different lesson – one that is best summed up by the expression, "Be careful what you ask for, because you just might get it."

## Import update – and Bragato sneak preview

### ENTAV-INRA® offerings come with expert clonal advice



ENTAV-INRA® representative Laurent Audeguin (left) – seen here with Nick Hoskins and Geoff Thorpe – will be in attendance at this year's Romeo Bragato conference.

Many growers have already expressed a keen interest in acquiring some of Riversun's imported material – indeed, the first ENTAV-INRA® accessions out of quarantine will be grafted this year for planting as dormant vines in the winter of 2007.

Unfortunately, due to the limited volumes of some clones, not everyone will be able to access the new material in its first year of release. "Riversun is currently developing

trial sites for the new varieties and clones," explains Robbie Greenslade, marketing manager. "We'll be working with prospective partners who have indicated their willingness to collect information about the material's viticultural and winemaking characteristics, and to compare the results with material already grown in the region."

Naturally, people's plans can change over time, so it's inevitable that additional partners will be needed closer to planting in 2007. For that reason, Robbie encourages customers who want to access a particular variety or clone to keep in touch. "At the very least, you'll be among the first to be contacted next year when larger volumes are ready for grafting," she adds.

An important component of Riversun's importation programme is the ongoing involvement and assistance ENTAV-INRA® offers its licensees. "We have a golden opportunity this year to learn more about new clonal material

suitable for use in New Zealand," observes Robbie. "In August, two ENTAV-INRA® representatives will attend the Romeo Bragato conference in Queenstown."

Laurent Audeguin, ENTAV's Agricultural Engineer, and Celine Barbier, ENTAV INTERNATIONAL'S Business Development Officer will both be in attendance at the conference, and Riversun has planned additional regional visits to make the most of their expertise. Winegrowers in Hawkes Bay and Marlborough can look forward to hearing about cultivars that are new to this country, as well as sought-after clones of Syrah, Pinot Noir, Chardonnay, Sauvignon Blanc and Pinot Gris.

For more information on the first import release and related ENTAV-INRA® events in your area, call Robbie Greenslade, Riversun marketing manager, at 06 867 1120 or email [Robbie@riversun.co.nz](mailto:Robbie@riversun.co.nz)

# Virus hunters hit their target

## Linnaeus laboratory pioneers new diagnostics

Hard work may serve as its own reward, but Dr Roderick Bonfiglioli prefers to see practical applications for his research. Technical director of Riversun and Linnaeus, Rod has steered the laboratory's recent investigations into the nature of Grapevine Leafroll-associated Virus (GLRaV) Type 3, the single most destructive virus commonly found in New Zealand vineyards.

Part of the closterovirus group, GLRaV-3 is readily and quickly spread in vineyards by mealybugs and by the use of infected propagation material. Yet despite the major economic impact of the virus in many countries, comparatively little work has been done to characterise the virus.

"Like many plant viruses, GLRaV-3 stores its genetic information in an RNA-based chromosome," explains Rod. "This information constantly undergoes minor changes in the RNA sequence, with the result that the virus continuously develops new strains or variants of itself."

In laboratory work, that presents a challenge because diagnostic methods are usually limited to detection of the commonest – or known – strains. Working with visiting Canadian scientist Mark Belton, the Linnaeus

team realised that existing PCR tests for GLRaV-3 did not provide uniformly clear readings for the presence of the virus. Even worse, the testing occasionally yielded "false negatives."

"We knew from our ELISA testing that the virus was in fact present, but ELISA work can only be done at certain times of the year," continues Rod.

"What was needed was a more accurate PCR test."

Suspecting that greater variation existed in strains of GLRaV-3 than was previously thought, Rod asked Mark to explore RNA sequences in order to identify the genetic differences between test samples in which the virus was known to be present. Their suspicions confirmed, the scientific duo developed special new primers



*Dynamic duo Rod Bonfiglioli (left) and Mark Belton have created a new and improved test for identifying Leafroll 3.*

to refine the testing programme for the virus.

"Using our new PCR primers, Linnaeus laboratory has definitely enhanced its diagnostic capabilities," says Rod. "We now have a test that can accurately diagnose clients' samples for the virus year round."

## All in the timing

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Much of the scion wood is harvested from June to the last week in August. "Many of our suppliers have large vineyards, and they like to start pruning as early as possible," Chris explains. "That means we need to have our order estimates well in hand so we can advise growers before they prune – and remember, this is still 12 months before delivery."

As part of Riversun's certification process all material must be ampelographically checked to ensure trueness to type prior to collection. Trained by Jean-Michel Boursiquot, the world's leading ampelographer and the director of ENTAV, Chris

and his assistant, Lisa Hills, cover the countryside, starting in October and finishing their rounds in late summer. Their job is to monitor vines and mark any "rogues" that show atypical characteristics, so that the wood will not be used in grafting. It's just one more critical point in the production of a grafted grapevine.

"Customers want Riversun certified vines because of their high quality and the fact that they're so rigorously virus-tested – it gives them peace



of mind that their investment will stand the test of time," says Chris. "Unfortunately, not everyone understands the amount of time required to produce such a product."

*To help you with the timing of your order, we have enclosed a calendar illustrating the decision-making milestones involved in every Riversun certified grafted grapevine. If you have any questions concerning when and how to place an order, please call us on our freephone number: 0800 11 37 47.*



# In the vineyard

with **Nick Hoskins**  
Riversun viticulturist

## Surf shooter

Gisborne is well known as a surfer's paradise, so it makes sense that Logan Murray, the photographer whose work has reached iconic status with the international surfing community, makes his home just outside of town at Wainui Beach.

Logan's spellbinding images in *The Surfer's Journal* and other publications provide ample proof of his patience and dedication in waiting for the perfect shot – a dedication he also brings to his “day job” at Riversun. Starting at the nursery in 1998, Logan has worked in a variety of capacities for Riversun and Linnaeus laboratory. Much of his time is devoted to quality control assurance – a role he relishes.

“I'm very comfortable with the culture,” he says. “I respect the Riversun way of doing things and enjoy helping to maintain the high quality of production.”

Opting to remain a casual worker, Logan uses his extended breaks to pursue his main passion: in the past three years, he has packed his bags for photo shoots in the Chatham Islands, Great Barrier Island, and the Catlins. Inducted into the Surfing New Zealand Hall of Fame in 2001, Logan recently self-published a collection of his best work, culled from 30-plus years of watching the waves and their riders.

“I took a leaf out of the Riversun ethos,” he explains, “and decided that I wanted a top-quality product.”

Released in 2004, *The Surf Photography of Logan Murray* is exactly that – a hefty coffee-table book that has garnered rave reviews and re-inspired surfers around the world to try New Zealand waters.

All too often, I receive calls from would-be investors/developers who haven't the foggiest idea about the steps required before grafted vines are ordered from Riversun. While it's true that timing is important to guarantee your nursery selections (a topic covered elsewhere in this issue), such decisions must follow those that determine site development.

The very first question a developer should address is, Where will the fruit and/or wine be sold? If fruit is to be contracted, the grower may be locked in to a winery's requirements for specific combinations of variety (or clone) and rootstock. Deciding what to grow will also be influenced by the intended site and region. Increasingly, however, vineyards are being developed in new and sometimes marginal areas, which present additional challenges. A thorough assessment of climate, water and soils is imperative, and most of this work must be done before purchasing the land.

Are long-term weather records available on site or close by? If not, how are you going to analyse the necessary data? Temperature and rainfall between February and April are the critical factors, although wind should also be

considered as it can have a major impact on vine vigour. In most regions, you'll also require a frost-risk assessment, and a microclimate study is worthwhile. The latter measures temperatures and compares on-site readings to the nearest weather station. A report detailing the severity and the expected number of frost events, along with recommendations on the best

form of frost control, is provided.

Water is often the biggest issue facing vineyard development. Taking water from a bore, stream or river requires resource consent, which will need to be organised well in advance. Water source is particularly important: volume and pump tests must be conducted in mid-summer when water flow is at its lowest. Choose an irrigation provider based on their track record, and ask for referrals to gain some feedback on customer satisfaction. Major suppliers will normally verify and comment on a design at no cost.

Vineyard layout and the irrigation system should be designed around the physical properties of soils at the site. An electromagnetic (EM) map will provide valuable information on soils' moisture-holding capacity and will define the boundaries of each soil type. Soil pits can then be dug within each boundary, from which soil and subsoil samples should be taken and tested. Some newer developments are already showing problematic soil chemistry, with issues such as high sodium or high pH. Without testing, subsoil problems may not become apparent until roots reach that subsoil

horizon; by then, the problems are difficult (if not impossible) to fix.

Once this information has been analysed,

the fun part begins – designing your vineyard in terms of row orientation, block size and irrigation zones. And yes, you can also start thinking about the varieties, clones and rootstock combinations you want.

Feel free to call Nick on 027 248 7724 if you have any questions regarding vineyard development.

**For more information on vineyard design, visit:**  
[www.riversun.co.nz](http://www.riversun.co.nz) – Riversun's website now offers a searchable database on varieties and clones available for grafting, and our links page provides access to businesses that can assist with frost protection, mapping services and irrigation design and componentry.