

REX'S PRACTICAL TIPS #17 JANUARY 2007

Sex in the Vineyard

Interesting calls from several growers in the deep south during flowering and just before Christmas. They were concerned about the wet weather and the caps not lifting, particularly on Pinot noir. They were all worried that if the caps did not lift off there would be no pollination.

The answer to the problem lies in a brief biology lesson.

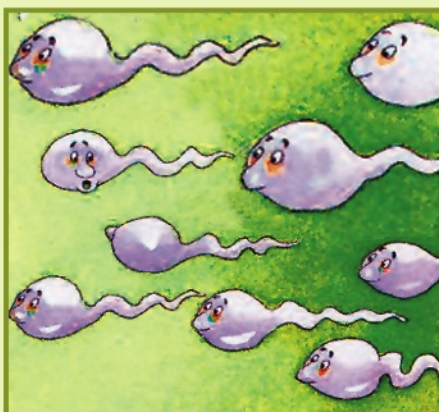
As you all know, grapes are mostly wind pollinated. This means that the pollen grains are very small, and only small gaps between the cap and the stigma (the female part of the plant that receives the pollen) are needed for cross pollination to occur. The cap **does not** have to lift off for pollination.

But the process is even simpler than that, as grapes are rather incestuous in their habits. They are quite happy to pollinate themselves, in fact this is probably more normal than cross pollination.

So why is it that in some years there is good fruit set and some years it is awful - when they are so easily pollinated?.. this is where the biology lesson starts...

On a biological level the process of setting fruit involves a number of quite distinct actions.

Pollination is the transfer of pollen to the stigma. This is the beginning and really the simplest part of the process. What happens next is that the pollen grain germinates like a seed and grows down towards the waiting egg where fertilization is due to take place.



Think of it as a sperm swimming towards nirvana. Now when it's warm this little fellow is a happy chappy and he gets on with the job of growing to the egg and marrying up his chromosomes with hers in 2-3 days.

When it's cold, it's jolly hard work and the job can take five or more days but he's only got a life expectancy of about 4 days.



Under these conditions the pollen tube carrying the male genes will very often run out of energy before it reaches the egg despite successful pollination having taken place a few days before. In the plant world pollination is nothing without fertilization!

Under our cool climate conditions temperature is the major limitation to fruit set, so in cooler areas Northerly aspect, shelter from wind and short grass or better still, cultivated soil will all assist in this the most beautiful act of nature.

I am assuming of course that you have the critical pre-flowering nutrition in order prior to flowering. The trace elements of note are Boron, Zinc and possibly Molybdenum.

Other than the above, really there is nothing you can do to improve fruit set in your vineyard. Nature will take it's course as it always does.



**MISTY
VALLEY
NURSERY**

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