

# ORiON Manuscript:

## *Decision support for grape harvesting at a South African winery*

(Responses to changes suggested by the referees)

The following changes have been affected to the manuscript, as suggested by the two referees, who are thanked for their careful reading:

### **Referee 1:**

1. Since the other referee made no mention of the length of the manuscript, the figures containing the spreadsheet screenshots have been removed, since in the authors' view these provide the reader with the concrete nature of the decision support provided by VinDSS. If the editor concurs that the figure should be removed, the journal manager is welcome to do so during final typesetting.
2. The official ORiON LaTeX stylesheet has now been used correctly to typeset the manuscript. Therefore it is implicitly assumed that the numbering in the manuscript conforms to the ORiON standard.
3. The referee is correct: the weight (25 tonnes) of Job 2 was omitted in the original manuscript, but has now been added.
4. The "word" "minimal" on page 11 has been changed to "minimum".

### **Referee 2:**

1. The referee is correct: the weight (25 tonnes) of Job 2 was omitted in the original manuscript, but has now been added.
2. The word "weight" has been substituted throughout the manuscript with "mass" in order to conform with the referee's personal preference.
3. The Chardonnay grapes require some time to lie with their skins before separation and therefore the Chardonnay grapes can only be separated in a separator, whereas the Sauvignon Blanc grapes may be separated from their skins while in the press or in a separator. An explanatory footnote to this effect has been added to the caption of Table 4.1.
4. The referee is correct: the numbering of the processors in the previous version of the manuscript was confusing. The last three processors ( $P_{13}$ ,  $P_{14}$  and  $P_{15}$ ) are also red wine fermentation tanks. However, these were already occupied for the purposes of the example, and hence not available for scheduling. Rather than explaining this, in detail, the processors  $P_{13}$ ,  $P_{14}$  and  $P_{15}$  were removed from the example completely in order to alleviate the confusion.
5. Since it is ORiON policy to allow either a comma or a full stop as decimal separator, the full stops were retained.
6. The five hours referred to by the referee refer to the time left in the primary fermentation. After primary fermentation the grapes should be pressed. It is important for the reader to understand this major difference between the red wine making process and the white wine making process. However, this already explained on page 5 (see numbered point 5 in particular).
7. The referee is correct: grape quality should have been included in the table. This has now been done. The qualities of Job 1 and Job 2 grapes are indeed the same, as guessed by the referee.
8. One of my PhD-students, Martin Kidd, has agreed to alter Figure 4.2 very slightly during the final typesetting phase so as to indicate the processor groupings, as suggested by the referee.
9. The information in the Table displays the total mass of the grape type delivered by the supplier from an entire vineyard block. However, a truckload of grapes is typically not as large as 40 tonnes (see Job 1 in Table 4.1, for example). The grapes from a block (as listed in the table) is divided into "batches"/truckloads and it is these truckload sizes that are assumed to be equal. The referee is further referred to §5.