ASVO WINE SHOW PROJECT

RECOMMENDATION III

TROPHY JUDGING PROTOCOLS

INTRODUCTION

A report by John Field (John Field Consulting Pty Ltd) examines the method used to judge trophies in Australian wine shows. It firstly surveyed some of the many voting methods that have been proposed and shows some of the paradoxical results which can be obtained.

CURRENT PRACTICES / PROBLEMS

•   The scoring methods in trophy judging, as currently practised, have not been validated, and there is unease with questions such as: How many wines in a group should be rated? Should all scores count? Should a higher number of first or second preferences be an influence rather than the sum of the points?

OBJECTIVE

•   Establish and validate an easy and effective method for judging of trophies.

The Field Report concludes that, following recent research in this area, the Borda Count method of voting should be used in the judging of wines for trophies. This is the same method as is often used for up to 4 - 5 wines in trophy judging at shows in Australia.

SUMMARY OF THE REPORT

The study of voting methods has been an active one for many years. It dates back to the 1770s and elections for the French Academy, and involves such notables as Napoleon. Over the years many voting systems have been proposed, and objections raised to their performance.

In the late 1940s economist Kenneth Arrow showed that all voting methods will produce paradoxical outcomes at times, and this work was partly responsible for Arrow winning the 1972 Nobel Prize for Economics. These paradoxes mean that a change in the voting system can change the outcome of the voting. The Field Report uses data from a recent wine show trophy judging to show that this is indeed the case.

Arrow's work was unchallenged until 2000, when Donald Saari, an American mathematician, published an elegant method for characterising all paradoxes and conflicts in voting systems. From this work it has emerged that there is one system of voting which avoids all the problems of other systems. This system is called the 'Borda Count' system, named after the French mathematician who proposed it in 1781.

The good news for wine show judges is that the Borda Count system is identical to the method typically used for up to five wines in trophy judging at wine shows in Australia. For example, with 3 wines to assess, each judge assigns 2 points to his or her first choice, 1 to their second, and zero to the third. With 4 wines, judges assign 3,2,1 and zero points respectively, and so on. The total points for each wine are tallied, and the trophy winner is the one with the most points. (In general terms, with n wines, each judge allocates $n - j$ points to their j^{th} choice, and the total points for each wine are used to decide the winner.)

RECOMMENDATION

The judging of trophies use the Borda Count method: that is: each judge allocate points to the wines in decreasing order of preference as follows:-

• with 2 wines, 1 point for first preference, and 0 points for second preference

• with 3 wines, 2 points for first preference, 1 point for second preference, 0 points for third preference

• with 4 wines, 3 points for first preference, 2 points for second preference, 1 point for third preference and 0 points for fourth preference

• with 5 wines, 4 points for first preference, 3 points for second preference, 2 points for third preference 1 point for fourth preference and 0 points for fifth preference.

• with 6 wines, 5 points for first preference, 4 points for second preference, 3 points for third preference, 2 points for fourth preference, 1 point for fifth preference and 0 points for sixth preference.

• with 7 wines, 6 points for first preference, 5 points for second preference, 4 points for third preference, 3 points for fourth preference, 2 points for fifth preference, 1 point for sixth preference and 0 points for seventh preference.

and so on. The total points for each wine should be tallied, with the winner being that wine with the highest number of points.

With this recommendation, note that:-

• all wines selected for inclusion in the judging are rated

• all scores count

• this method is the same as is currently used for up to 5 wines