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Articles in the field of agricultural economics, suitable for publication in the journal, will be welcomed.

Articles should have a maximum length of 10 folio pages (including tables, graphs, etc.), typed in double spacing. Contributions, in the language preferred by the writer, should be submitted in triplicate to the Editor, c/o Department of Agricultural Economics and Marketing, Pretoria, and should reach him at least one month prior to date of publication.

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E² Certain facts regarding the wine industry in South Africa

by

G.J. WISSING,
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Wine as defined in Act No.25 of 1957, is "the beverage obtained solely by the alcoholic fermentation of the juice of fresh grapes." This definition conforms to the generally valid international description of this product.

Wine is an agricultural product. Natural factors such as soil, location, climate, varieties of grapes as well as the methods of viticulture and vinification exercise a determining influence on the yield per production unit and the wine's nature, character, quality and marketability.

Wine is furthermore a biological product subject to judgement, in the final instance, by organoleptic and other subjective criteria. Widely differing judgements of a particular wine are thus possible. This subjective process which reaches from the producer to the consumer has a profound influence on the price which a wine can ultimately command.

Grapes, the basic raw material, are used to produce two categories of wines, namely good wine and distilling wine. Good wine is wine which is regarded as suitable for eventual consumption as such, while distilling wine is judged to be unsuitable or unmarketable for eventual consumption as such but is suitable for distillation and processing into spirituous liquors, i.e. brandy and wine spirits.

The nature and requirements in respect of each of these two wine categories are, however, widely divergent and these factors determine the eventual utilisation of every ton of wine grapes.

PRODUCTION

South African wine producers tend, where circumstances permit, to produce good wine rather than distilling wine. Purely economic reasons account for this and are twofold, namely the relatively low price for distilling wine and the larger demand for natural wines.

Note: "Ton" refers throughout to the short ton.
1.75 proof gallons are approximately equal to 1 gallon of absolute alcohol;
Approximately 1.5 proof gallons of alcohol are required for 12 reputed quarts of spirituous liquors like brandy;
1 leaguer of wine is equal to 127 gallons;
1 leaguer of wine at 20° proof strength is equal to about 25.4 proof gallons of wine spirits.

The production and value of good wine and distilling wine crops are given for a number of years in Table 1. The values represent the amounts received by producers.

TABLE 1 - Production and value of wine, 1958-1968

Year	Good wine		Distilling wine	
	Production	Value	Production	Value
	Bulk leaguers	R1,000	Leaguers at 20° P.S.	R1,000
1958	177,274	5,182	339,839	8,003
1959	184,562	6,152	302,541	8,458
1960	225,957	8,273	341,827	9,622
1961	217,747	8,049	295,972	8,855
1962	215,036	9,011	360,899	9,701
1963	242,670	10,325	363,777	10,732
1964	299,522	12,710	330,087	10,425
1965	320,648	15,455	403,859	13,020
1966	293,185	14,554	434,661	13,520
1967	313,247	15,851	419,321	14,055
1968	368,417	18,581	437,476	15,778

Good wine

Good wine, that is wine for consumption as such, may be divided into two classes, namely:

- Table wines (still or sparkling) - white, red, rose, dry and semi-sweet. These are known as natural wines to which no spirits have been added.
- Fortified wines like port, sherry, and muscatel. In the production of these wines a certain quantity of wine spirit is added to fortify them.

The quality requirements for the production of good wine are, by the nature of the product, set high. Only selected grapes may be used for this purpose. On account of this and the nature of the processing process not only good wine is obtained from a given quantity of good wine grapes. A certain portion is recovered as distilling wine. The following (based on the experience of the K.W.V.) serves as an indication of the quantities of good wine and distilling wine obtained from a ton of good wine grapes:

In producing white table wines the yield from a ton of grapes could amount to good wine 113 to 117 gallons and distilling wine 27 to 33 gallons.

In the production of red table wines where fermentation may take place on the husks and certain pressing processes may be applied without affecting quality adversely the yield from a ton of grapes could amount to 123 to 128 gallons of good wine and 17 to 22 gallons of distilling wine.

In some cellars which do not dispose of the latest equipment the yield of good wine can be considerably less. For white wines the yield from a ton of grapes could be 70 to 75 gallons of good wine and 70 to 75 gallons of distilling wine.

Distilling wine

Distilling wine comprises two basic classes: rebate wine which is distilled to potstill brandy and ordinary distilling wine which is distilled to potable spirits and is used in the production of spirituous liquors such as brandy and gin and for the fortification of wine.

(a) Rebate wine. This is wine to be used for the distillation of potstill brandy and is derived from approved grapes - mainly white non-muscat varieties. As with good wine grapes, two products can be derived from grapes intended for rebate wine, namely rebate wine and distilling wine which is regarded as unsuitable for distillation into potstill brandy. Normally the maximum yield from a ton of grapes is 105 to 110 gallons of rebate wine and 35 to 40 gallons of distilling wine.

(b) Ordinary distilling wine. This is a sound young wine intended for distillation into potable spirits which is used for blending with potstill brandy, for the manufacture of other spirituous liquors, such as gin, vodka and liquers and for the fortification of wine. On average 143 to 145 gallons of ordinary distilling wine are obtained from one ton of grapes. Other than in the case of good wine and rebate wine only distilling wine is derived from distilling wine grapes. Wine spirits may, of course, not be supplied by the trade to the public for drinking.

UTILISATION OF DISTILLING WINE

1. Production of brandy

Act No.25 of 1957 prescribes that brandy must be the product derived exclusively from the vine. This means that only wine spirit may be used in the blending of brandy. After approval by the Government Brandy Board rebate wine is distilled in potstills. Only 95 per cent of the yield is regained as rebate brandy. After the distillate has also been approved by the Brandy Board, it is placed under maturation as rebate brandy for at least three years. By law brandy intended for sale in South Africa, must contain at least 25 per cent rebate or potstill brandy, matured in a warehouse and in small wood which had both been approved by the Excise Department. This potstill brandy is, for the marketing of standard

brandy blended with wine spirit and broken down to consumption strength which, by law may not be below 75° proof spirit.

Domestic consumption of brandy, 1965 - 1968

<u>Year</u>	<u>Proof gallons</u>
1965	4,278,910
1966	4,452,356
1967	4,175,526
1968	4,190,814

2. Fortification of good wine

In the production of the traditional fortified wines like port and sherry a certain quantity of wine spirit is added. The maximum quantities of wine spirit which may be added are laid down in the Act and there is also a provision that only wine spirit may be used for this purpose.

Wine spirit used for fortification

<u>Year</u>	<u>Proof gallons</u>
1965	3,681,641
1966	4,404,409
1967	3,231,388
1968	3,422,065

3. Wine and cane spirits for gin, vodka and liquers

By subjecting wine spirit to redistillation over juniper berries and other aromatic substances gin is produced. Gin, vodka and liquers may also be produced from cane spirit.

TABLE 2 - Domestic consumption of wine and cane spirits for gin, liquers, vodka, etc.

	<u>Wine spirit</u>	<u>Cane spirit</u>
	<u>1,000 Proof gallons</u>	
1966	1,370	1,273
1967	1,220	1,804
1968	1,582	1,968

During the three years the use of cane spirit increased more rapidly than that of wine spirit. As already mentioned more than three million proof gallons of wine spirit are, however, used yearly in the fortification of good wine.

4. Use of wine spirit in the manufacture of industrial products

The use of wine spirit for non-potable purposes is insignificant; this demand is satisfied mainly by alcohol derived from cane spirit. Small quantities are, however, used for scents and by chemists. The quantities of wine spirit sold by the K.W.V. from surplus stocks have been as follows:

Year	Scents	Chemists
	Proof gallons	
1966	2,520	16,236
1967	2,836	18,187
1968	2,052	19,304

5. Manufacture of products like vinegar and grape syrup

Grapes for distilling wine are also used to produce vinegar and grape syrup. The syrup is *inter alia* used to sweeten certain kinds of wine. The yearly production of grape syrup amounts to about 5,000 leaguers, equal to about 20,000 leaguers of wine. Vinegar is also produced from distilling wine and the yearly output is about 400,000 gallons.

CONSUMPTION

The domestic consumption of table wines, fortified wines and brandy is given in Table 3.

TABLE 3 - Consumption of wines and brandy

Year	Table wines ¹⁾ (except sparkling)	Fortified wines	Brandy
	Million gallons		Million proof gallons
1958	11.1	8.0	3.4
1959	12.5	9.1	2.9
1960	13.9	9.6	3.1
1961	14.9	9.9	3.3
1962	14.8	9.3	3.3
1963	17.9	10.8	3.8
1964	22.5	11.4	4.2
1965	22.3	10.4	4.3
1966	23.3	10.2	4.4
1967	26.9	10.7	4.2
1968	30.9	10.7	4.2

1) Includes own use on farms

PRODUCERS' PRICES

The prices of good wine are more stable than those of distilling wines. The prices of the latter vary in accordance with supply and demand.

Every year the K.W.V. recommends a minimum price for good wine to the Minister of Agriculture, who approves it if he agrees with the recommendation.

For distilling wine the K.W.V. yearly fixes the price wine merchants have to pay and they

as well as other interests have a right of appeal if they do not agree with the price.

The producer, however, does not receive this price for all his distilling wine. Every year during January, the K.W.V. determines what the probable surplus from the crop will be. The portion of the crop declared as surplus, the producer has to deliver to the K.W.V. without payment. The balance he may sell to wine merchants but at not less than the fixed price. The price for 1969 was for example R40.64 per leaguer at 20% standard strength and the surplus was estimated at 24 per cent. Thus the producer receives 76 per cent of R40.64 or in effect R30.89 per leaguer for his entire crop. From that portion of the crop delivered to the K.W.V. bonuses might subsequently be paid. During the past five years the bonuses were, 1964 R4.3005, 1965 nil, 1966 R1.75, 1967 R4.44 and 1968 R4.271 per leaguer. The K.W.V. also uses the income from the surplus to finance its activities and to build up reserves.

TABLE 4 - Prices received by producers for wine, 1958-1968

Year	Good wine	Distilling wine ¹⁾
	R per leaguer	
1958	26.00	23.11
1959	32.35	27.62
1960	32.35	27.89
1961	32.35	29.58
1962	38.10	26.66
1963	38.10	29.23
1964	38.10	31.29
1965	45.72	31.31
1966	45.72	30.11
1967	45.72	32.25
1968	45.72	34.95

1) Bonuses included

Prices received by producers for good wine and distilling wine are given in Table 4. For 1969 the price for good wine was increased to R50.00 per leaguer and that for distilling wine remained unchanged.

Source: K.W.V.