

Contract Usage in the California Winegrape Economy

by

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Over the past quarter-century U.S. agriculture has witnessed a widespread increase in the use of contracts. This phenomenon is in keeping with the increased commercialization of agriculture. Contracts reduce and shift price and production risk as well as insure product uniformity and quality. The extent of contract usage varies in different sectors of agriculture. Broilers, processed vegetables, market eggs, and turkeys are virtually 100 percent under contract, fresh vegetables around half, and feed grains and hogs almost zero. Contract usage in fresh fruits is not uncommon but the extent is not known. However, winegrapes appear to be a leading candidate, given the characteristics of the product and its production.

In the winegrape market, contracts are often used to mitigate the effects of uncertainty and imperfect information. Winegrapes are an important crop, especially in California where 96 percent of the U.S. crop is grown. In terms of cash receipts, grapes are the largest fruit crop in the U.S. with over three-fourths of these receipts coming from winegrapes. Winegrapes are a high value crop with relatively steep entry costs. Initial investment, including land, can run upwards of \$40,000 or more per acre. After planting, there is virtually no crop for three years. Year-to-year fluctuations in yield are considerable, causing substantial price variation. Since time is required to recoup large initial investments, price variation and future price levels are major concerns. Both of these concerns are often handled in contracts.

There are several reasons why prices or pricing methods are stipulated in a contract. The first and most obvious is that it usually confirms the price to be paid upon delivery and thus avoids later conflicts and perhaps litigation. Growers enter into contracts because they are producing a perishable product and often do not have the facilities to crush the grapes, ferment the juice and store the wine. Hence, the growers' bargaining position becomes weaker as harvest time approaches. Also, contracts reduce grower marketing costs. It is possible for growers to have their grapes custom crushed, fermented and stored under their name for later marketing. This is another arbitrage mechanism and some growers engage in this process. Storage is expensive and limited and there are limits on how long wine, and especially grape juice, can be stored without being bottled. Growers generally prefer

to deal with marketing uncertainty through contracts, often long term. Planting contracts are often the key to securing loans for vineyard development.

From the winery's point of view, contracts are desirable because they assure a supply of grapes at a known cost. Also, contracts provide a vehicle for the implementation and monitoring of various viticultural practices which the winery may deem desirable. Also, contracts can stipulate bonuses and/or penalties for various performance attributes such as sugar or acid content, disease control, etc.

AIC Winegrape Contract Survey

In June 1999, the Agricultural Issues Center (AIC) conducted a survey to discover various facts about contract usage in the winegrape industry. The survey was based on a questionnaire mailed to 12,000 growers statewide. The CASS (California Agricultural Statistics Service) grape acreage data base was used for this mailing. Hence, the listing is comprehensive of all state grape growers.

The Center received over 2000 responses, an almost 20 percent response rate. Growers' time is valuable and we tried to keep the questionnaire simple (mostly yes or no) and short (one page). The survey results are given for all respondents and are also presented by the following four broad regions.

NC: North Coast - Napa, Sonoma, Mendocino, Lake and Solano counties.

CC: Central Coast - Monterey, San Luis Obispo, Santa Barbara, San Benito, Santa Clara, Santa Cruz, San Mateo, Contra Costa and Alameda counties.

CSJ: Central San Joaquin - Sacramento, San Joaquin, Yolo (south of I-80), Stanislaus, Merced and Foothills counties.

SSJ: Southern San Joaquin - Fresno, Tulare, Kings, Madera and all other counties.

Based on the CASS data base, the regional distribution of growers and respondents is given in Table 1.

Table 1. Characteristics of California Grape Growers

Region	All	NC	CC	CSJ	SSJ
Acreage	752,000	96,000	65,000	103,000	488,000
Growers	11,726	3430	1018	1834	5444
% Growers	(CASS)	29	9	16	46
% Response	(Survey)	26	12	25	37
Acres/grower	(CASS)	28	64	56	90
Acres/grower	(Survey)	64	99	104	165

From Table 1 it is clear that the percentage response from each region closely matches the population percentage in each region. This is one indication that the survey is representative of the population of growers. The other indication is from the rows for acres per grower for the whole state (CASS) and for the survey. The statistics indicate that survey respondents were generally operators of larger vineyards. However, the relative sizes (of CASS versus Survey) in each region were quite similar. This is important since there are difficulties in ascribing average size to intervals, making the overall average size computation somewhat problematical.

Of the respondents, 90 percent were growers only. The remaining 10 percent were either a winery only (7 percent) or a winery/grower (3 percent). This is ambiguous because we do not know how many wineries are not growers (in the sense that they sell to other wineries) and how many wineries define themselves as growers if they sell grapes. Based on CASS records for grower population, 93 percent are growers only and 7 percent are wineries. This again implies close congruence. As a further test of congruence we matched vineyard size from sample respondents with known vineyard sizes (from CASS) by region. Again we found a close congruence between the sample vineyard size by region and the CASS data on vineyard size.

Table 2. Percentage of Respondents with Contract Usage

	All	NC	CC	CSJ	SSJ
Written Only	70	71	56	68	74
Oral Only	11	13	20	15	4
Both¹	9	12	13	11	4
Neither	10	4	11	6	18

¹ Many growers have more than one buyer and hence more than one contract. Some of these growers responded by checking both written and oral since some had both types of contracts. This phenomenon was present in other questions also. The only way to obtain clearer responses would be a more detailed questionnaire. This would have greatly reduced the response rate.

Survey Results

Table 2 gives the percentage of respondents (growers and wineries) who use contracts. The results indicate that contract usage is widespread in the winegrape industry and written contracts clearly dominate. A more interesting question is, how many growers have long-term contracts? One-year contracts are really spot market sales since few

growers wait until harvest to obtain a buyer. Analysis showed that 50 percent of respondents had contracts of more than one year with an average length of 3.5 years. The most frequent lengths for contracts were 3, 5 and 10 years. The 10-year contracts were generally planting contracts (Table 3).

Contracts with evergreen (renewal) clauses were quite popular as Table 3 also shows.

Price Determination

Another area of major interest is the manner in which prices are determined in these contracts. Table 4 gives the percentages of contracts using various methods for price determination.

The totals in Table 4 can sum to more than 100 percent since some contracts have overlapping price determination methods. For example, the base price could be stated in the contract. It could be moved year to year with the county average (reference price) for that variety or could be negotiated yearly within a max/min limit. The term 'Stated in Contract' simply means that the buyer and seller agree to a price or a payment schedule over time and incorporate it in the contract. The term 'Reference Price' means that the contract price is based on some widely available price such as the crush district average which is published annually by CASS. The 'max' and 'min' entries in Table 4 refer to the existence of maximum or minimum prices which will be paid.

The survey also showed that few (22 percent) contracts stipulated maximum tonnage although nearly half did note some expected level of tonnage or specified grapes from a certain acreage.

Bonuses and Penalties

The survey asked questions about the extent of bonuses and penalties for sugar, acids, MOG (material other than grapes) and defects (rot, mildew, etc.). As shown in Table 5, penalties are more prevalent than bonuses, although 33 percent of contracts in the Southern San Joaquin do provide for a sugar bonus. Overall, almost 20 percent of contracts have some bonus provisions. Penalties are more widespread with over 35 percent having some penalty provision.

Organizational Structure of Contract Respondents

The last main area of the survey related to the organizational aspect of winegrape growers. Most sellers have been in the grape growing business for some time. The average was nineteen years with little variation by region. The average time with the same buyer was 9 years, again with little regional variation. A small proportion of the contracts, 7 percent, was brokered by a third party. Lastly, almost half of the contracts for the North and Central coast contained conflict resolution clauses, such as arbitration. For the Central and Southern San Joaquin regions, the percentage of contracts with conflict resolution clauses were 33 percent and 22 percent respectively.

Summary

The purpose of this paper has been to communicate the findings of the AIC survey on the use of contracts in the California winegrape economy. The primary finding is that contract usage is widespread in the winegrape sector of the agricultural economy. Ninety percent of growers surveyed had contracts, 80 percent were written contracts and 10 percent were oral. The majority of the respondents had multi-year contracts. Those with one-year contracts were considered to be spot-market participants. Many of these contracts contained an evergreen clause.

The most important aspect of contracts is the price determination clause. The survey showed that price determination was roughly divided between a) a negotiated price stated in the contract, b) a price to be negotiated yearly, and c) contract price based on some reference price such as the crush district average. Bonuses were not widespread with the exception of sugar for the Central and Southern San Joaquin regions. Penalties for low sugar, MOG and defects were high in all regions, averaging 44 percent of the contracts.

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Table 3. Percentage of Respondents with Planting Contracts and Evergreen Clauses

	All	NC	CC	CSJ	SSJ
Planting Contract	10	9	13	21	8
Evergreen Clause	30	45	34	8	9

Table 4. Percentage of Respondents with Price Determination Provisions

	All	NC	CC	CSJ	SSJ
Stated in Contract	31	27	30	29	36
Negotiated Yearly	27	28	25	27	24
Reference Price	35	50	41	34	11
Per Acre Price	2	3	3	1	1
Max	8	8	13	9	7
Min	15	13	14	24	14
Other	5	4	3	3	3

Table 5. Percentage of Respondents with Bonuses and Penalties

Bonuses	All	NC	CC	CSJ	SSJ
Sugar	18	11	7	17	33
Acids	4	3	3	3	6
MOG	9	7	5	10	13
Defects	10	8	10	10	15
Penalties	All	NC	CC	CSJ	SSJ
Sugar	42	13	40	57	34
Acids	10	11	9	12	7
MOG	43	39	37	59	48
Defects	47	45	41	60	48

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