

ORGANIC PRODUCING IN ENTRE-DEUX-MERS :

LIGHTING BY COSTS AND ECONOMIC PERFORMANCE

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Outline

- Introduction: the usefulness of studying organic viticulture
- 1 - Sample and methodology used
- 2 - The costs of returns: bio more expensive
- 3 - Business and economic performance: no notable difference
- Conclusion

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Introduction

- If organic is very fashioned in viticulture, lack of references remains heavily ;
- Diversity and heterogeneity of situations make delicate generalization of surveys ;
- A lighting through a survey leded end of 2013 on 15 wine estates from E2M (7 conventional / 8 bio) (accounting year 2012);
- Same methodology used, from costs to economic performance ;
- Quite interesting results, not to over estimate.

Sample and methodology

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| | BIO | CONVENTIONAL |
|------------------------------------|-------|--------------|
| NUMBER OF FARMS | 8 | 7 |
| UAA PRODUCTION | 24 | 51 |
| AVERAGE YIELD 2008-2012 | 44.73 | 54.48 |
| DENSITY PLANTS / HA | 3 730 | 3 575 |
| HA BY AWU | 13.37 | 12.39 |

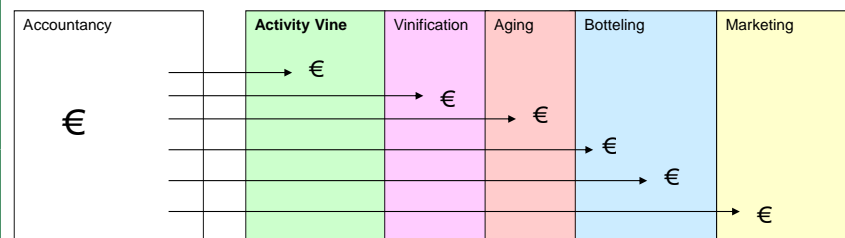
- Strong heterogeneity of marketed volumes (1 to 10 for organic, 1 to 147 for conventional) ;
- just using global results

Sample and methodology

| MARKET STRATEGY | ORGANIC GROUP | CONVENTIONAL GROUP |
|---|---------------|--------------------|
| BULK (VOL BULK > 66 %) | 2 | 3 |
| BOTTLE (VOL BT > 88 %) | 3 | 2 |
| MIXED (BULK ≈ 55%) | 2 | 2 |
| BIB (BIB > 68 %) | 1 | |
| CIRCUIT | ORGANIC GROUP | CONVENTIONAL GROUP |
| NEGOCIANT (VOL > 53 %) | 4 | 5 |
| EXPORT (VOL > 85 %) | 1 | 1 |
| INDIVIDUAL CUSTOMERS (VOL > 50 %) | 1 | 1 |
| MIXED | 2 | |

Sample and methodology

- Costing method : ABC method
- Full costs by activity :



✓ $Cost\ of\ a\ bottle = Cost\ of\ Vine + Cost\ of\ Vinification + Cost\ of\ Aging + Cost\ of\ Bottling + Cost\ of\ Marketing$

- Economic costs including cost of labour (for the manager and family and cost on capital (# accounting costs))

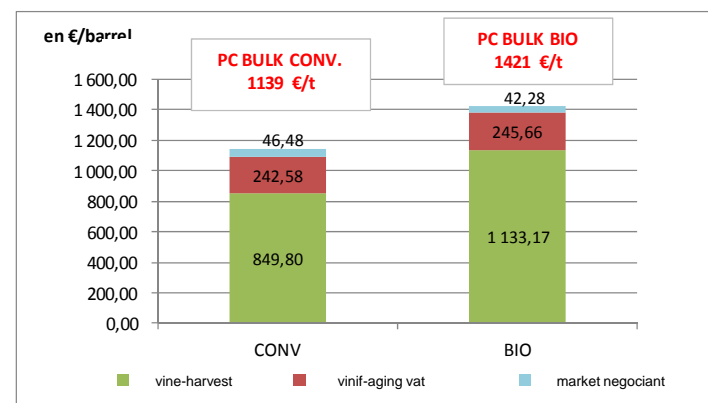
Sample and methodology

- Trade Performance :
 - ✓ Trade effort
 - ✓ Range
 - ✓ Trade weight
 - ✓ Sake price
- Economic Performance :
 - ✓ Sale ability
 - ✓ Economic income
 - ✓ Income according to sale strategies

Return costs : organic more expensive

Wine in bulk

Figure 1 : Comparison of production costs in bulk



Source : Etude E2M 2013-2014, Bordeaux Sciences Agro - AAG

Return costs : organic more expensive

- Average cost organic : > 25 % (282 € per barrel)
- Main difference : Vine - harvesting costs
- Cost per hl (€) :

| ORGANIC GROUP | | CONVENTIONAL GROUP |
|-------------------|---------------|--------------------|
| 158 | | 127 |
| % COST | ORGANIC GROUP | CONVENTIONAL GROUP |
| VINE - HARVESTING | 80.0 | 74.6 |
| VINIF. AGING | 17.2 | 21.3 |
| MARKET | 2.8 | 4.1 |

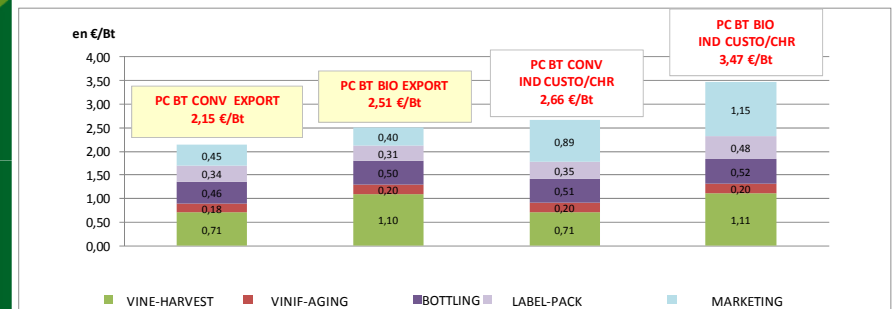


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Return costs : organic more expensive

Figure 2 : Comparison of production costs per bottle



Source : Etude E2M 2013-2014, Bordeaux Sciences Agro - AAG



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Return costs : organic more expensive

- Average bottle cost is higher among the bio :
 - + 16 % export
 - + 30 % individual customer
- vine remains the most important activity in the cost and the more explanatory
- packaging and marketing also play among individuals



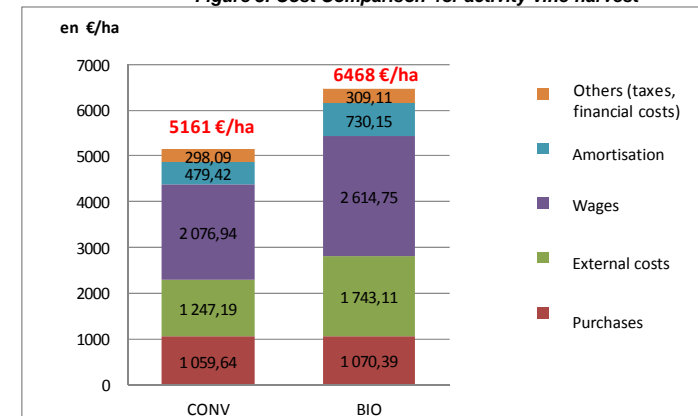
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Return costs : organic more expensive

Vine cost analysis / ha : + 25 % for bio

Figure 3: Cost Comparison for activity Vine-harvest



Source : Etude E2M 2013-2014, Bordeaux Sciences Agro - AAG



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Return costs : organic more expensive

Vine cost analysis / ha : + 25 % for bio

- *variability* :
1.87 for bio (4 228 - 7 897 €/ha)
1.38 for conventional (4 377 - 6 028 €/ha)
- Most explanatory component : wages
- Manual harvest for 3 bio, not other significant difference regarding wages
- Amortisation and external costs
- Yield difference 10 hl/ha :
Cost/ hl higher 52 % in organic

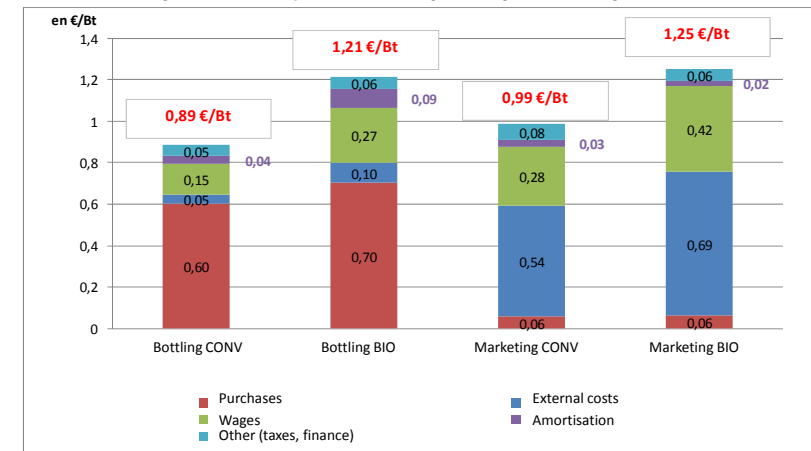


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Return costs : organic more expensive

Figure 4: Cost Comparison of bottling, labelling and marketing for bottle



Source : Etude E2M 2013-2014, Bordeaux Sciences Agro - AAG



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Return costs : organic more expensive

- Packaging : + 36 % for bio : dry matter purchases, wages
- Significant differences of volume
- Marketing choices ?
- Marketing : + 27 % for bio : external charges, wages



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Business and Economic performances : no notable difference

- Trade effort/ year similar : 0.54 - 0.57 AWU
- Effort more important for bio :
14 % Labor force - versus 8 % for conv.
- Range: 16 products on average,
but 4 products cover 75 % of sales



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Business and Economic performance : no notable difference

Ranges : similarity

Tableau 3: comparison of ranges depending circuit - Etude E2M 2013-2014

| | GROUP CONVENTIONAL | | GROUP BIO | |
|----------------------|--------------------|------------|--------------|------------|
| | nb pdts sold | nb estates | nb pdts sold | nb estates |
| Négociant | 3.86 | 6 | 2.25 | 6 |
| Supermarket | 1.86 | 3 | 1.88 | 3 |
| CHR - Wine shops | 4.14 | 5 | 7.88 | 7 |
| Individual customers | 9.43 | 7 | 9.75 | 8 |
| Export | 7.14 | 4 | 7.38 | 4 |



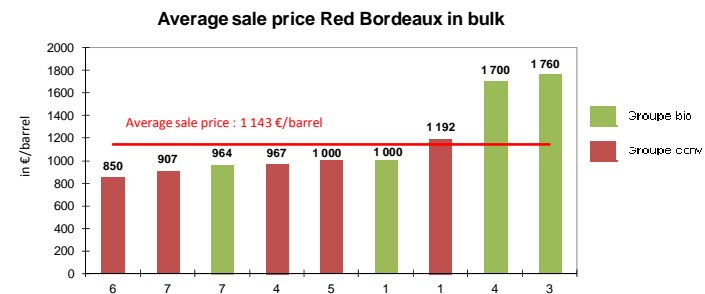
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Business and Economic performance : no notable difference

Sale prices

Figure 5 : Average sale price for wine in bulk



Source : Etude E2M 2013-2014, Bordeaux Sciences Agro - AAG

- High variability, more important in bio. Possibilities to act
- No systematic « bio effect »



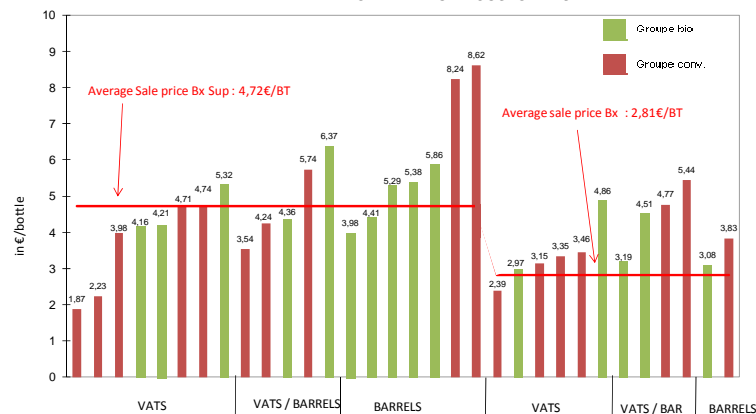
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Business and Economic performance : no notable difference

Figure 6 : Average sale price wine in bottle for individual customers

AVERAGE SALE PRICED BORDEAUX IN BOTTLE FOR INDIVIDUAL CUSTOMERS



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Source : Etude E2M 2013-2014, Bordeaux Sciences Agro - AAG

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Business and Economic performance : no notable difference

- High variability in prices
- No bio specificity, but a trend towards superiority
- Barrel not systematic profitable



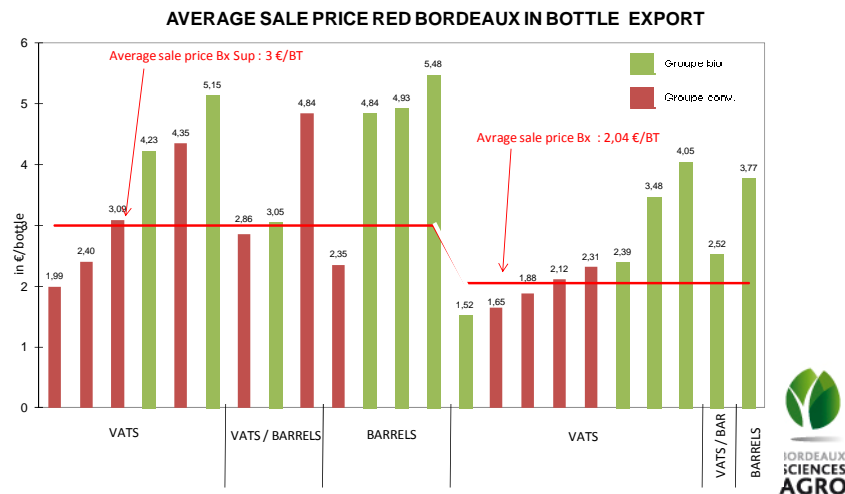
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Source : Etude E2M 2013-2014, Bordeaux Sciences Agro - AAG

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Business and Economic performance : no notable difference

Figure 7 : Average sale price red Bordeaux bottle export



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Source : Etude E2M 2013-2014, Bordeaux Sciences Agro - AAG

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Business and Economic performance : no notable difference

- High variability in prices
- Bio specificity visible

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Source : Etude E2M 2013-2014, Bordeaux Sciences Agro - AAG

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Business and Economic performance : no notable difference

Trade weight depending circuits

Tableau 4: comparison business weight by circuit - Etude E2M 2013-2014

| CIRCUITS | GROUPE CONVENTIONAL | | | GROUPE BIO | | |
|---|---------------------|----------------------|----------|------------------|----------------------|----------|
| | MARKET COST €/hl | AVER SALE PRICE €/hl | WEIGHT % | MARKET COST €/hl | AVER SALE PRICE €/hl | WEIGHT % |
| Negociant France | 5.16 | 134.64 | 4 | 11.64 | 224.37 | 4 |
| Individual customers - CHR - Wine shops | 127.84 | 458.62 | 28 | 167.73 | 467.80 | 39 |
| Export | 78.71 | 307.06 | 26 | 53.2 | 360.00 | 15 |

- Trade weight higher in bio in France, less for Export

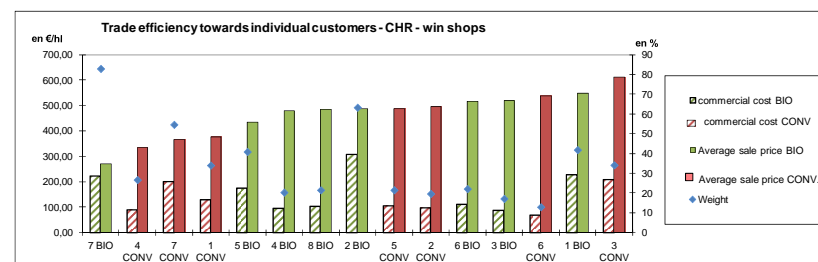
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Business and Economic performance : no notable difference

Trade weight depending circuits

Figure 8 : Trade weight in bottle sales for individual customers/CHR



Source : Etude E2M 2013-2014, Bordeaux Sciences Agro - AAG

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Business and Economic performance : no notable difference

Trade weight depending circuits

- Organic does not always allow better valorisation
- Marketing cost is not linked to sale prices

Source : Etude E2M 2013-2014, Bordeaux Sciences Agro - AAG



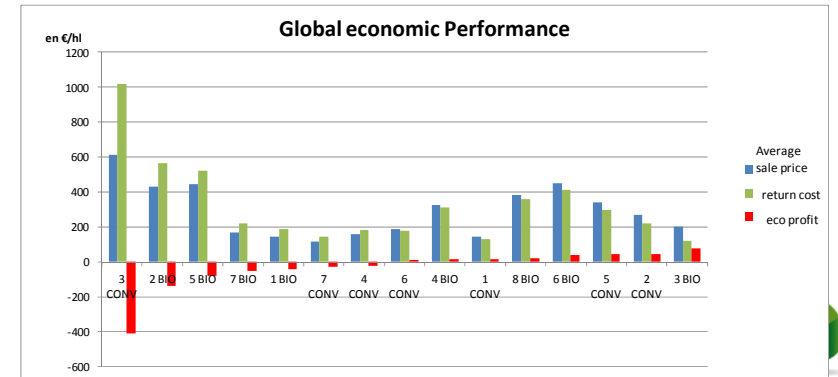
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Business and Economic performance : no notable difference

Economic performance

Figure 9 : Global economic performance



Source : Etude E2M 2013-2014, Bordeaux Sciences Agro - AAG



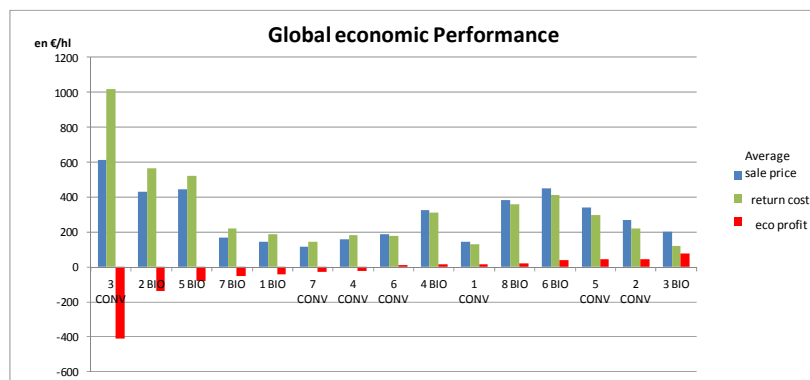
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Business and Economic performance : no notable difference

Economic performance

- No link sale price - performance (3 conv, 5 bio)



Source : Etude E2M 2013-2014, Bordeaux Sciences Agro - AAG



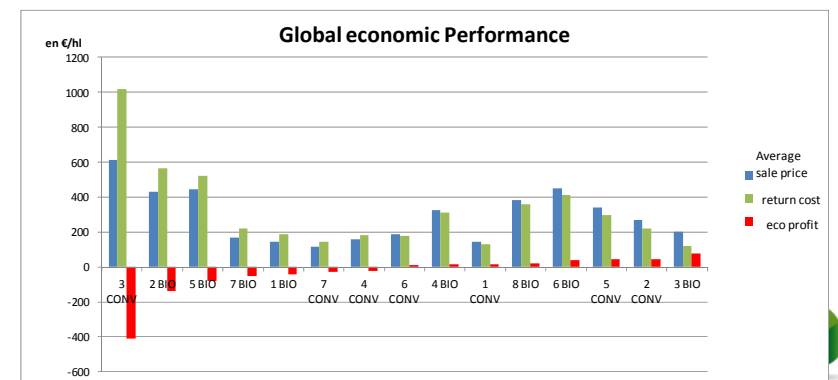
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Business and Economic performance : no notable difference

Economic performance

- No link sale price - performance (3 conv, 5 bio)



Source : Etude E2M 2013-2014, Bordeaux Sciences Agro - AAG



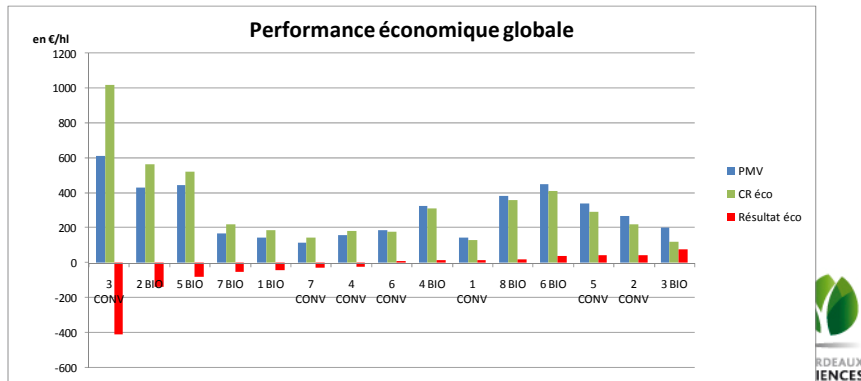
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Business and Economic performance : no notable difference

Economic performance

- Sales in bottle (2, 3 conv) and bulk (3 et 5 bio) at both extremes



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Source : Etude E2M 2013-2014, Bordeaux Sciences Agro - AAG

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Business and Economic performance : no notable difference

Economic performance

- Performance = adequacy cost - price
- Higher costs in bio are covered by higher sale prices
- But performance also relies on = ability to sale

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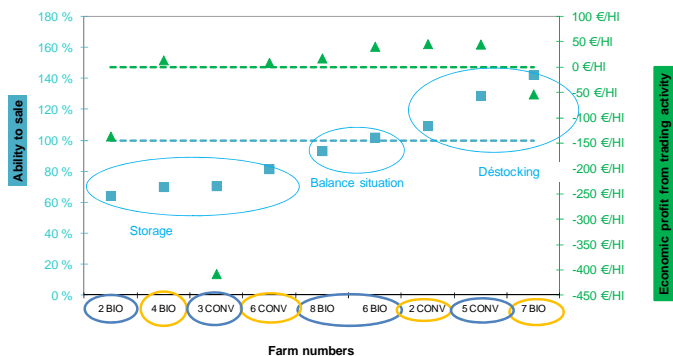
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Business and Economic performance : no notable difference

Economic performance

Volume sold during year
Average volume harvested over 5 years

Mixed Strategy BT Strategy



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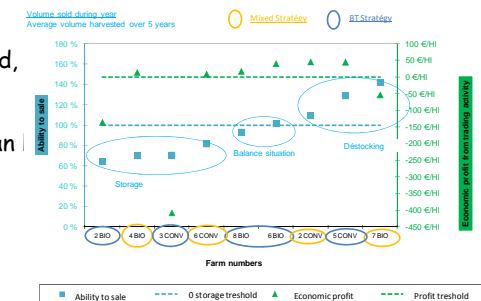
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Business and Economic performance : no notable difference

Bottles and mixed

- Storage mostly observed, penalizing profit
- Destocking does not mean price



Source : Etude E2M 2013-2014, Bordeaux Sciences Agro - AAG

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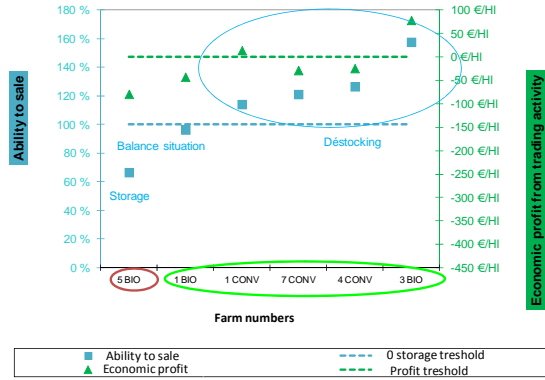
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Figure 10 : Capacité à vendre et résultat économique des stratégies BT et Mixte

Business and Economic performance : no notable difference

Wine in bulk

Volume sold during year
Average volume harvested over 5 years



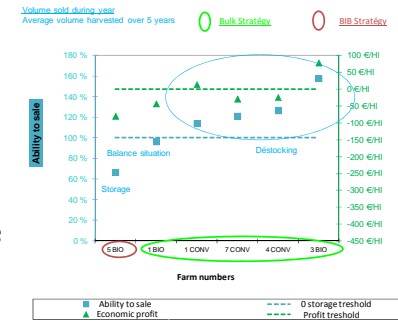
Source : Etude E2M 2013-2014, Bordeaux Sciences Agro - AAG



Figure 10 : Capacité à vendre et résultat économique des stratégies BT et Mixte

Business and Economic performance : no notable difference

Wine in bulk



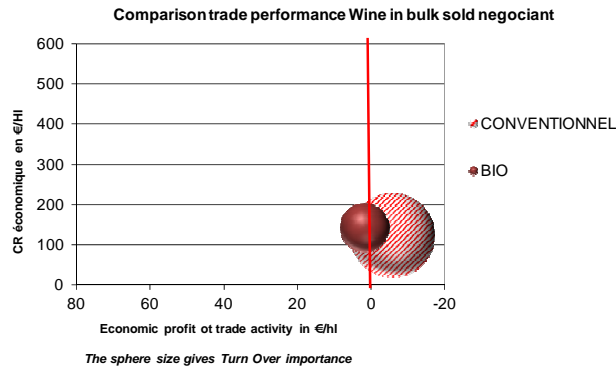
Source : Etude E2M 2013-2014, Bordeaux Sciences Agro - AAG



- Mostly destocking
- Destocking does not mean losses

Business and Economic performance : no notable difference

Performance by circuit : wine in bulk, sale price effect

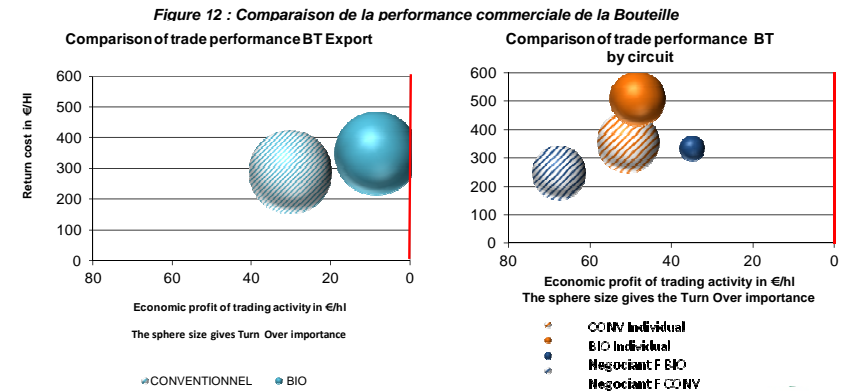


Source : Etude E2M 2013-2014, Bordeaux Sciences Agro - AAG



Business and Economic performance : no notable difference

Performance by circuit : sales in bottles, positive effect



Source : Etude E2M 2013-2014, Bordeaux Sciences Agro - AAG



Business and Economic performance : no notable difference

Performance by circuit

- Sales in bottle Export : Important Turn Over, BIO prices higher (2.69 €/bt et 2.39 €/bt), but less profit while higher costs (2.62 €/bt et 2.17 €/bt)
- No significant difference in France circuits



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Conclusion

- With this sample, BIO production costs 25 % higher
- higher costs in different activities (rapes, bottling and labelling, marketing)
- Comparable trading performances
- Similar economic performances



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Conclusion

- No ready-made idea on the bio / conventional: neither guarantee of success nor impasse;
- The economy is not the only dimension to look at for today evaluating the interest of a production system: environment and social dimension are also needed to take into account...



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Thank you for your attention



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