



Group 20:

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# **Findings for TomMac Strategic Decisions**

# Overview

## **We are investigating:**

- The optimal operation for the current circumstances
- The ability to increase profits with the presented strategic decisions and future uncertainty
- The ability to increase profits by varying mix proportions
- Possible further investigation to inform future ventures for growth

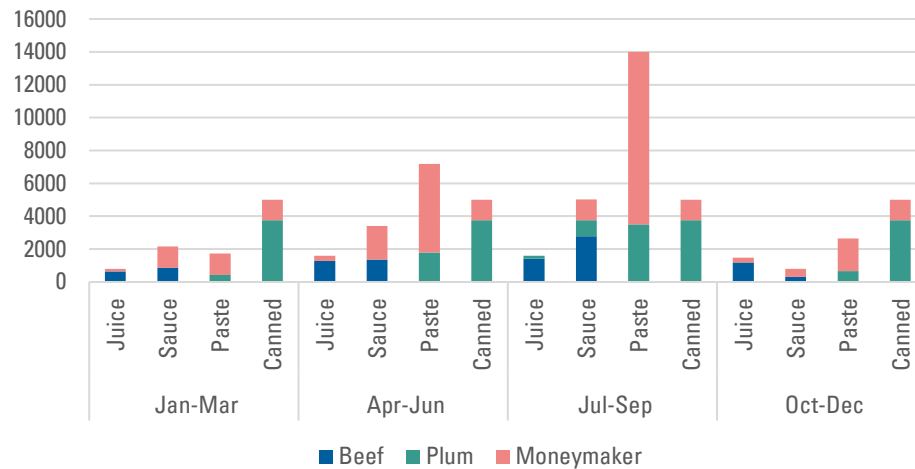
Please note – all calculations on this report were done using XPress, and the details are set out in an accompanying Mosel file which we are happy to provide. We have also put together a report with some additional details and analysis

# Base Case

- Tomato varieties available : Beef, Plum and Moneymaker
- Products to manufacture: Juice, Sauce, Paste and Canned
- Limited by: Tomato Availability, Tomato Composition, Production limits, Demand, Contract

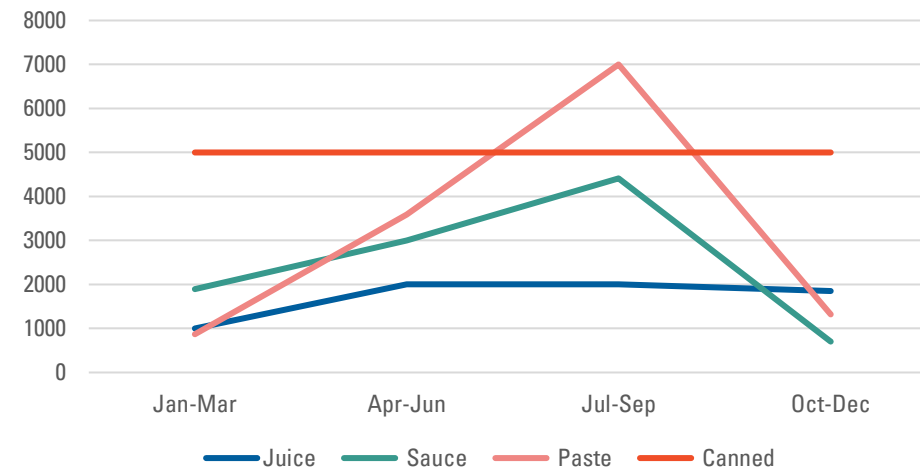
# For the Base Case

Amounts of each variety used for each product



- Buy all available Moneymaker tomatoes in each quarter
- Buy all Beef tomatoes in Q1 + Q4

Amounts of each product to make



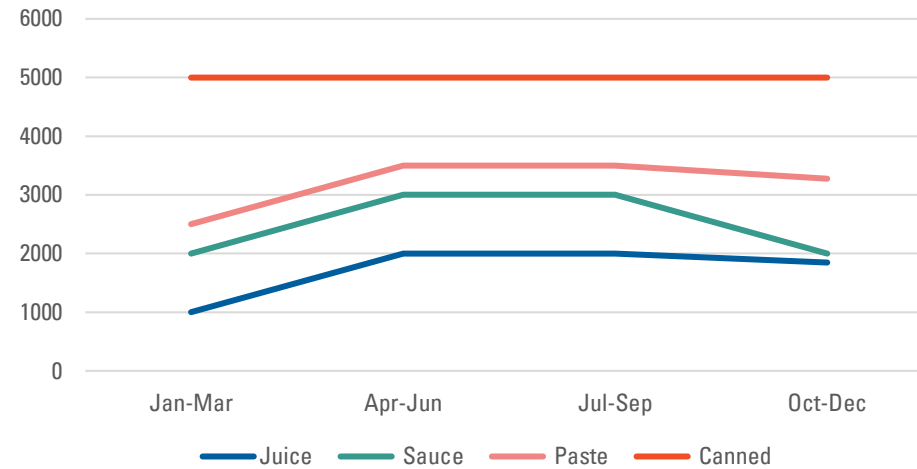
- Paste production limited in Q3

# Base Case Continued

Stock	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec
Juice	0	0	0	0
Sauce	0	0	1410	108
Paste	0	90	3590	1633
Canned	0	0	0	0

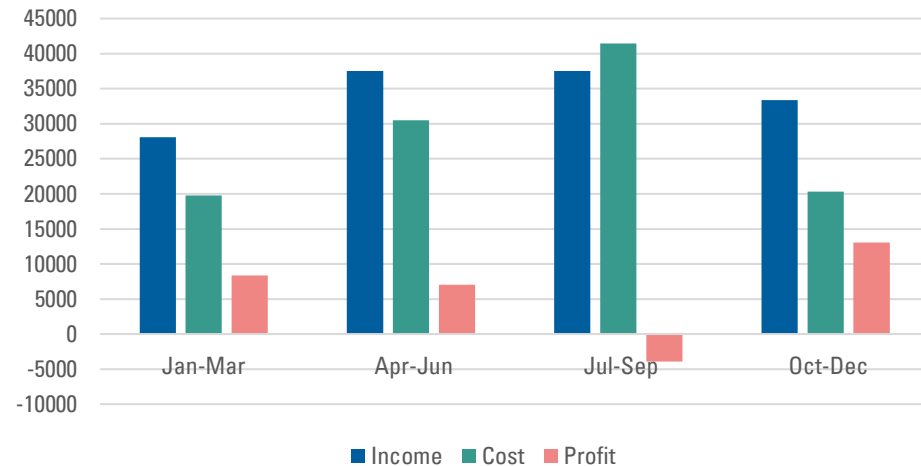
- Warehouse filled in Q3

Amounts of each product to sell



- Meet contract and demand for canned product every quarter

Income/Profit/Cost in each quarter



Overall profit £24,500

£3900 loss in Q3

# Strategic decisions

1. Rent new warehouse – extra 5000kg, costs £3000 / year
2. Sign new contract
3. Upgrade production – 20% increase in production capacity, costs £400 / year

	New contract sales			
	Juice	Sauce	Paste	Canned
New contract (kg)	600	1000	1000	2000
New contract price (£/kg)	1.93	2.66	4.35	2.05

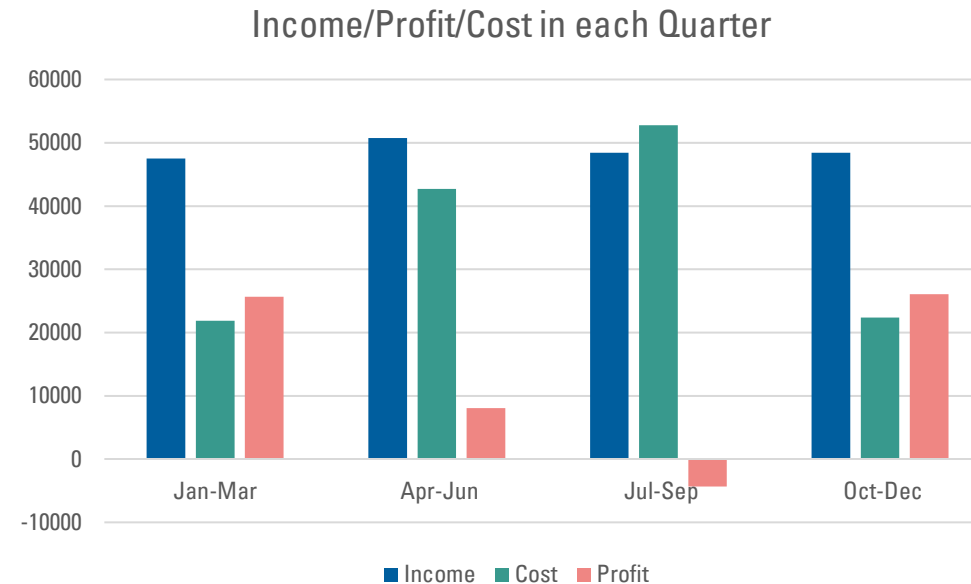
## Future Scenario

- Prices of their products (for both contracts and for additional sales) will increase by 20%
- Demand for them will remain constant
- Production costs will increase by 5%

New contract new price (£/kg)	2.31	3.19	5.22	2.46
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# New profits for each decision

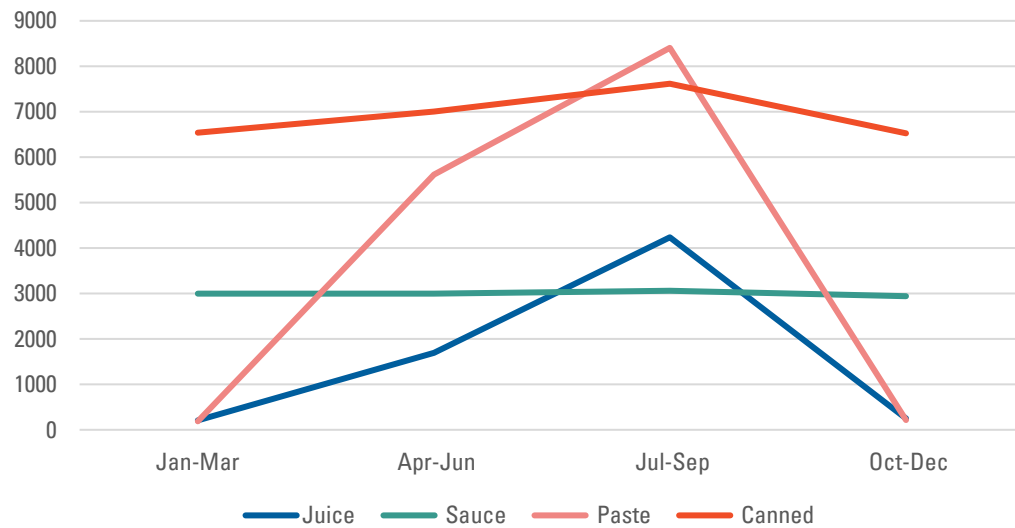
Decision combination	Profit (£)
No decisions	48325
Warehouse	49937
Contract	Infeasible
Production	48317
Warehouse + Contract	52020
Warehouse + Production	49849
Contract + Production	Infeasible
All decisions	52035



- £4300 loss in Q3

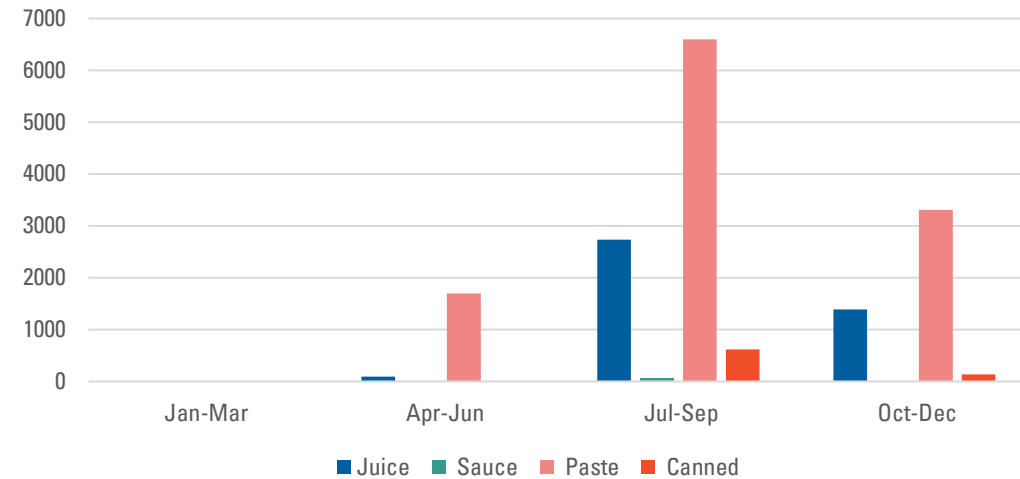
# Best decision set

Amounts of each product to make



- Paste production limited in Q3

Amounts of each product to hold in stock in each quarter

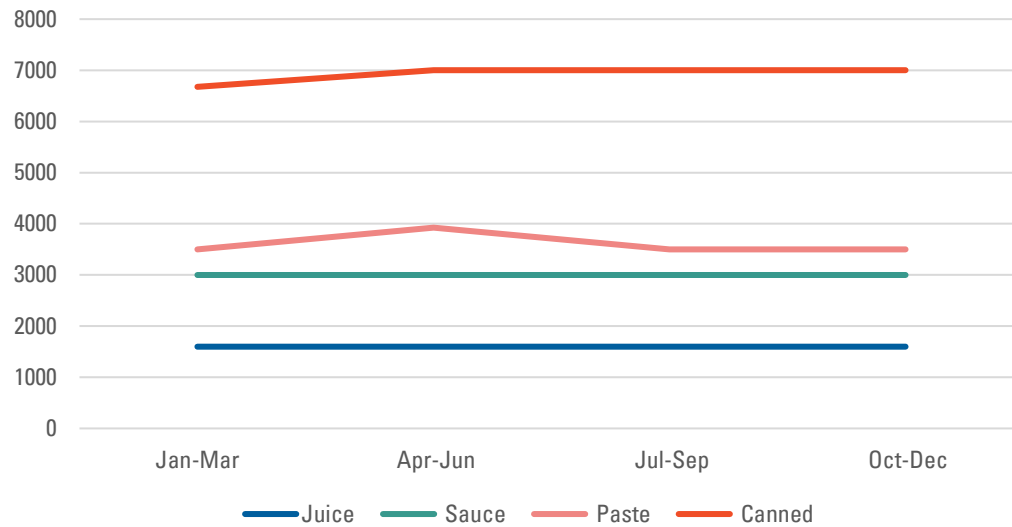


- Warehouse filled in Q3



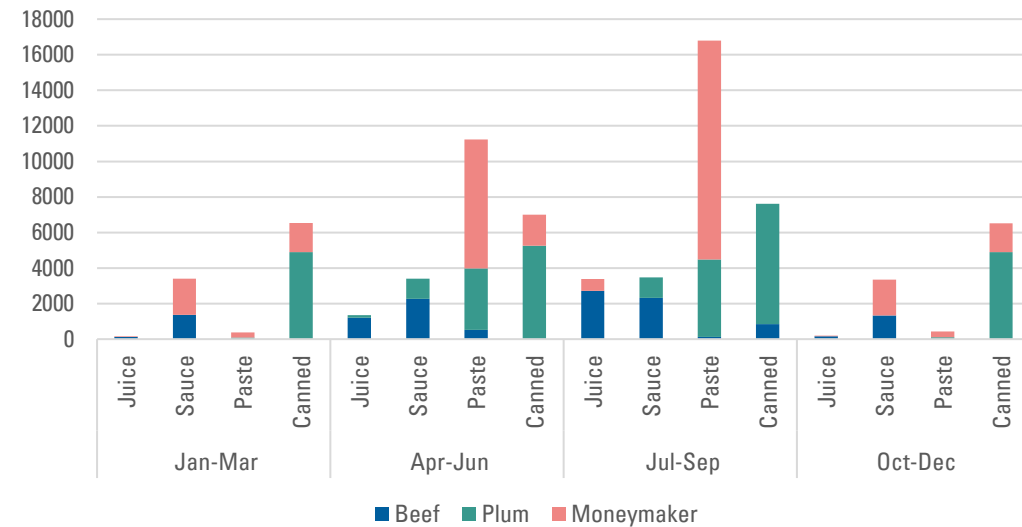
# Best decision set continued

Amounts of each product to sell



- Paste sales exceed contracts in Q2
- Canned sales exceed contracts in all quarters
- Juice and Sauce meets both contracts

Amounts of each variety used for each product



- All tomatoes other than the plum variety used up in all quarters
- Some plum tomatoes left available in Q3

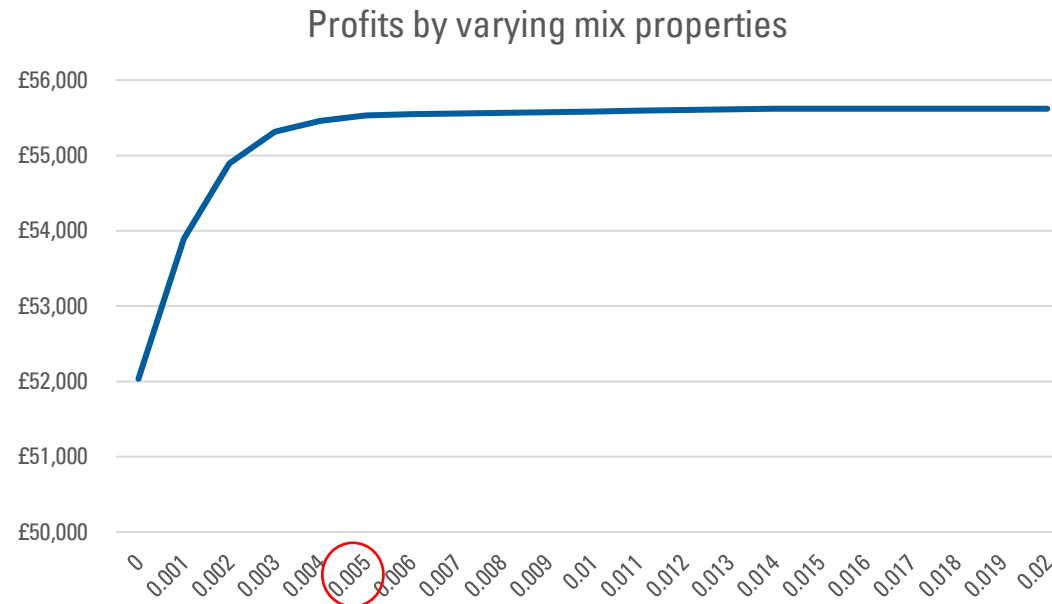
# Profit increases for additional tomatoes

(£/kg)	Q1	Q2	Q3	Q4
Beef	3.47	2.28	2.65	3.32
Plum	0.57	0.02	-	0.45
Moneymaker	1.27	1.18	1.33	1.25

\*More similar profit/loss analyses in the report

# Varying mix properties

- The more the mix properties are varied, the less the profit increases (diminishing return)
- A mixing tolerance of 0.005 in the ratios (0.5%) would be adequate to increase profits by £3424.77 (+6.58%), while keeping an almost identical formulation
- Further changes could impact product quality for little financial reward



# Possible future directions

- Buying more tomatoes

**Once this has been done, you could consider:**

- Increasing demand through advertising campaigns
- Introduction of new products
- Obtaining new contracts/warehouses etc.

**Thank you for your attention**

**LPMS** consulting

**Please feel free to ask any questions!**