



DECISION MAKING IN THE BERRY BUSINESS

TOOLS AND TECHNIQUES TO IMPROVE THE
QUALITY OF YOUR DECISIONS

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Blueberry farm in Jalisco, Mexico



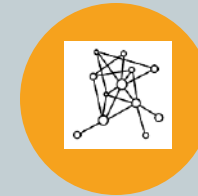
ROADMAP OF THE PRESENTATION



(1) Objectives



(2) Business cases



(3) Environmental complexity



(4) System I & 2



(5) Noise and Bias



(6) Heuristics



(7) Strategies and tools



(8) Conclusions and call to action



OBJECTIVES



- To **HAVE A DEEPER UNDERSTANDING** of why we too often make poor decisions



- To **REVIEW SITUATIONS** where decisions can have an undesirable impact



- To **TRANSFER INSIGHTS** and **DESCRIBE TOOLS** to improve the quality of decisions in your organization

Disclaimer!





CASE A : COMMERCIAL REDISTRIBUTION AT THE OUTSET OF THE COVID-19 PANDEMIC

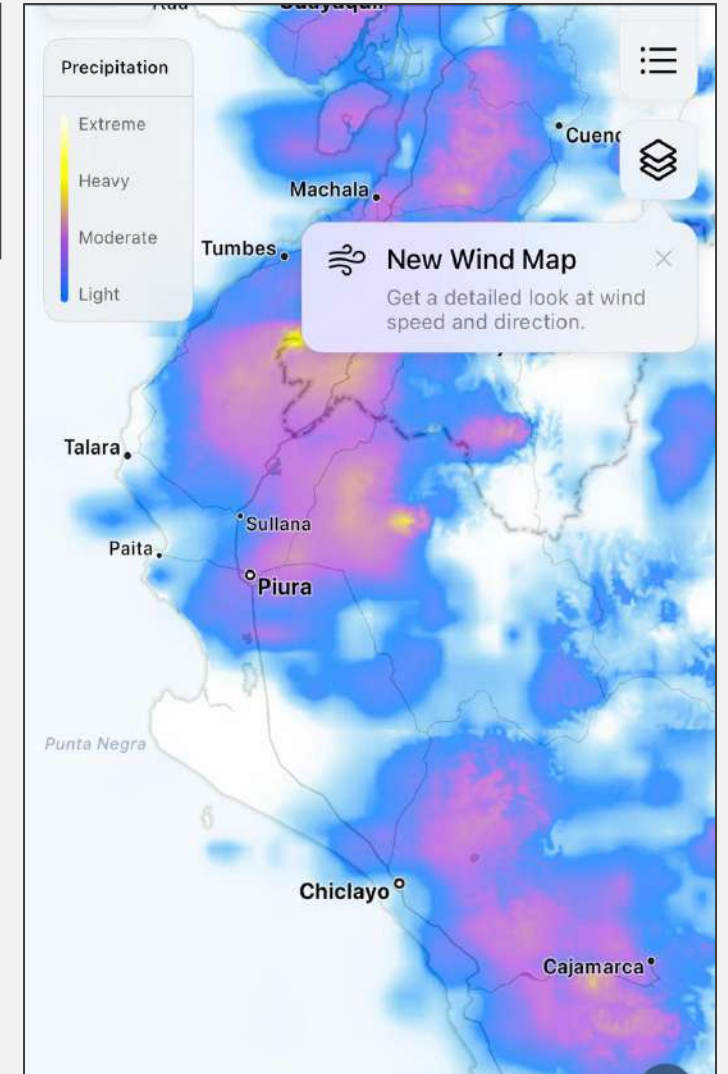
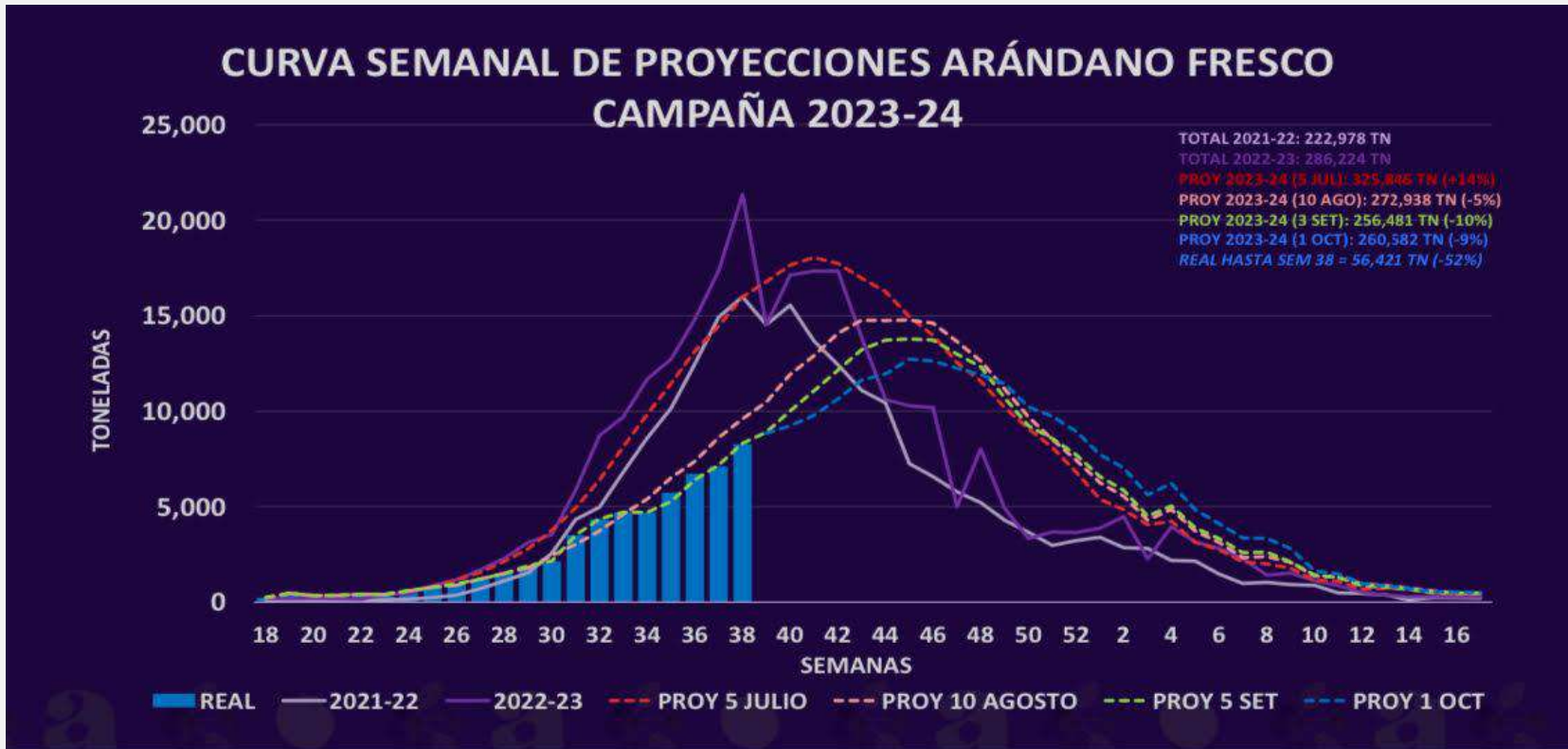
Destination	REAL		ALTERNATIVE	
	Real distribution	Net Grower Return (US\$/kg)	Alternative distribution	Net Grower Return (US\$/kg)
China	26%	1,57	10%	1,57
Asia	11%	3,72	20%	3,72
Europe	17%	2,51	20%	2,51
U Kingdom	35%	3,46	30%	3,46
U States	9%	3,29	15%	3,29
Latam	2%	3,73	5%	3,73
	100%	2,83	100%	3,12
Total kilos	700.000	1.978.060	700.000	2.184.700
Diference				206.640



What were the consequences of this decision?



CASE B: FORECAST OF PERUVIAN SUPPLY



Graph from Proarandanos Report

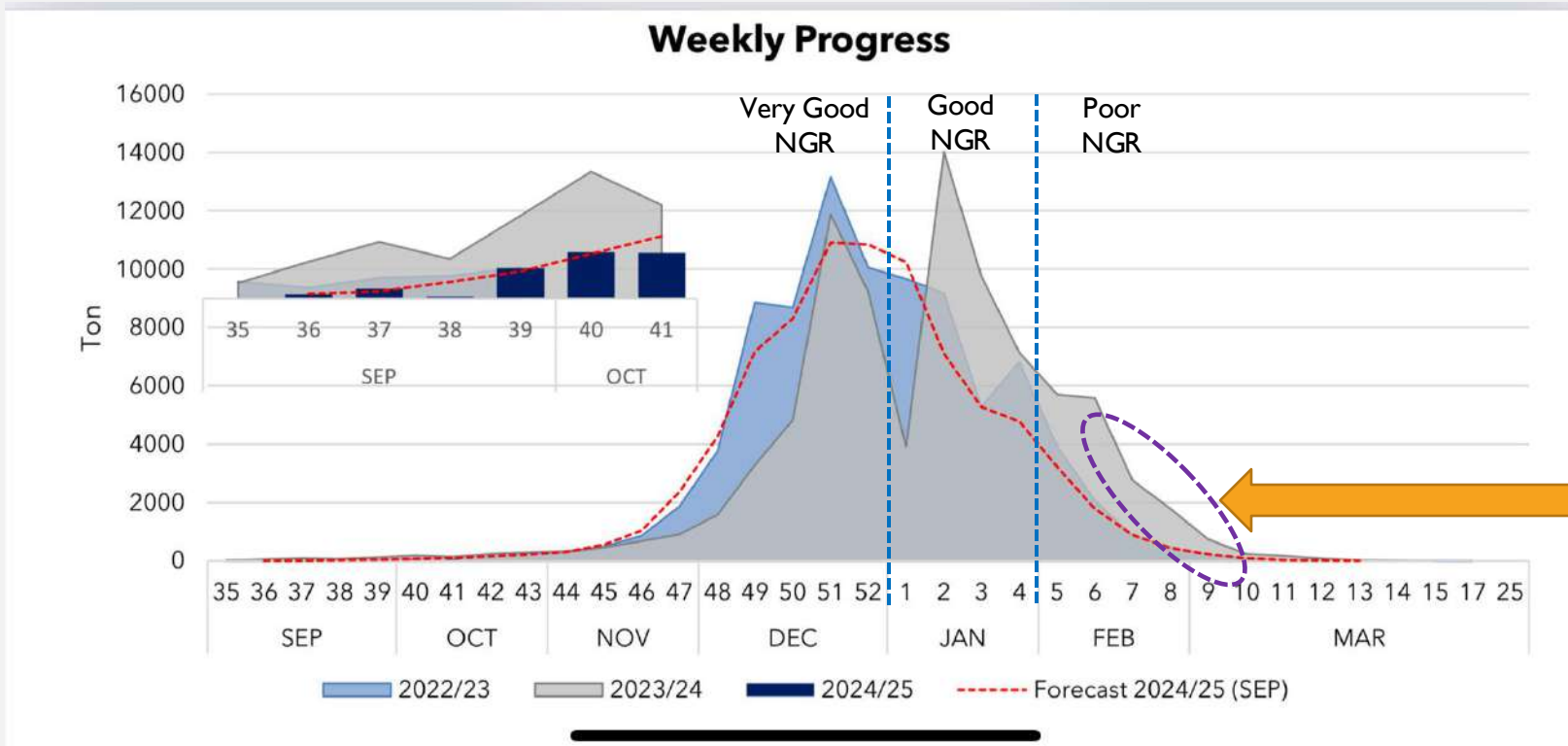
Forecast (july 2023): 326 million kg

Real: 225 million kg (- 31%)

What were the consequences of this estimation error?

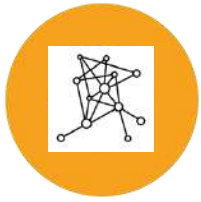


CASE C: FORECAST OF CHILEAN SUPPLY (2023/24)



Graph from The Chilean Blueberry Committee Report

What were the consequences of this estimation error ?



THE BERRY BUSINESS DECISIONAL ENVIRONMENT

EXTERNAL



- Regulatory framework
- Market dynamics
- Technology
- Economy
- Political and geopolitical

INDUSTRY



FARM SYSTEM



Decisional system



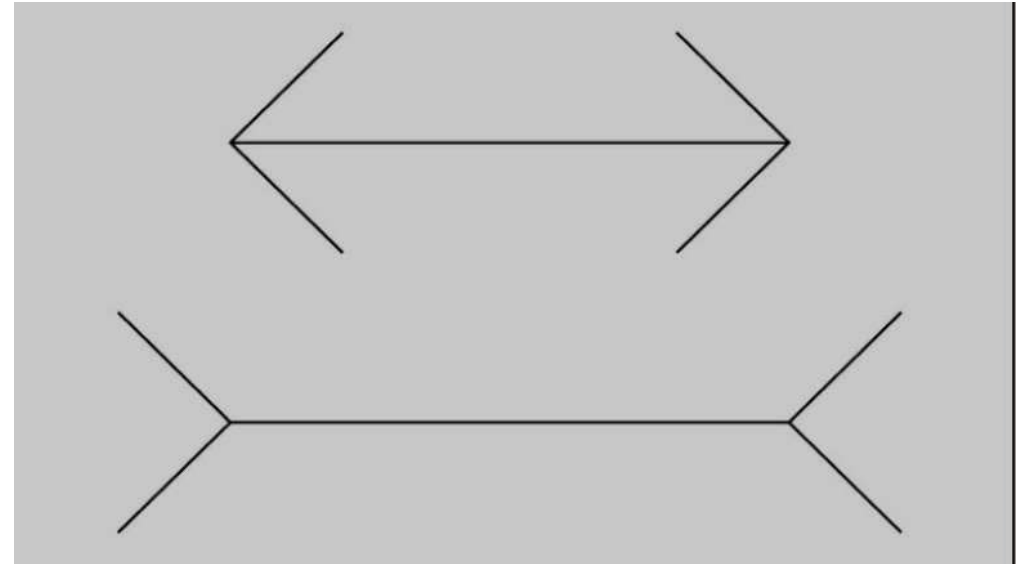
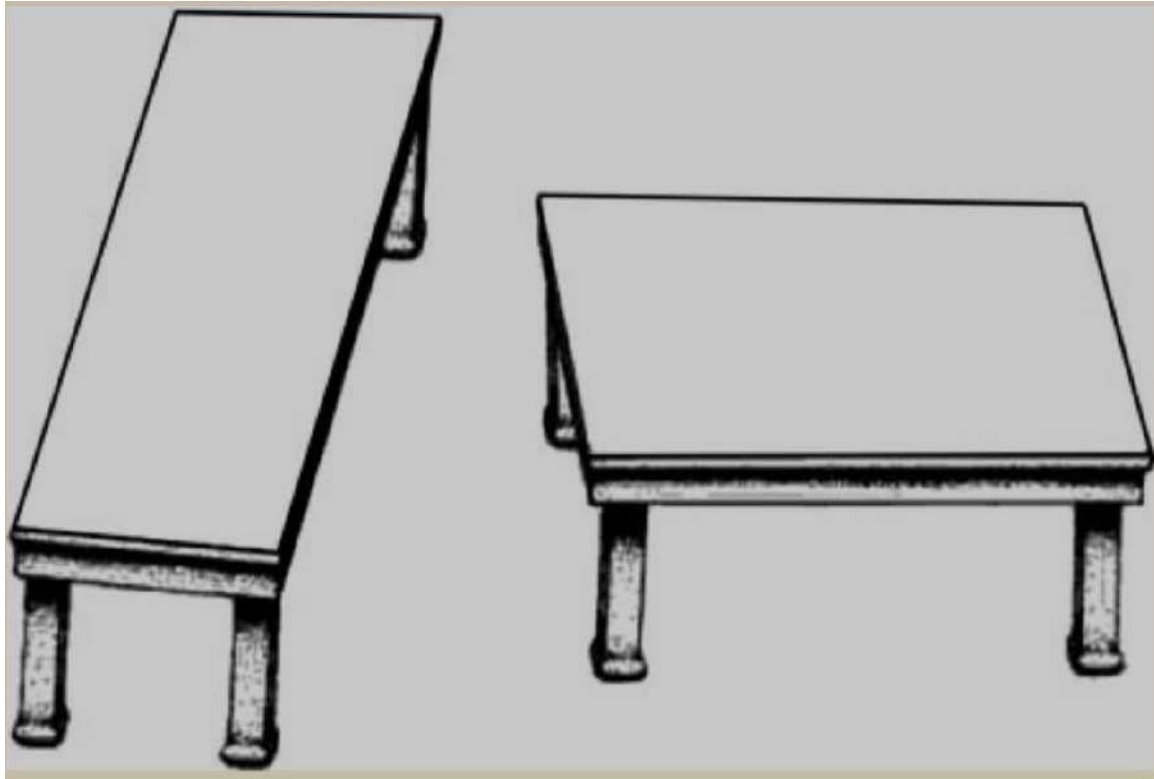
Operating system



Biophysical system



TEST 1 AND 2





TEST 3

- You have 30 seconds to think your answer
- The shirt and the ball cost MAD 1100
- The shirt costs MAD 1000 more than the football
- How much is the football?
- The right answer is MAD 50



$$\text{MAD } 50 + \text{MAD } 1050 = \text{MAD } 1100$$



TOO OFTEN WE MAKE POOR DECISIONS. WHY?*

System I (Survival Mode)

- Impulsive
- Intuitive
- Immediate
- Heuristics is applied
- Low energy and effort



System II (Analytical Mode)

- Thoughtful
- Rational
- Needs time
- Requires structured information
- Effort and energy consuming



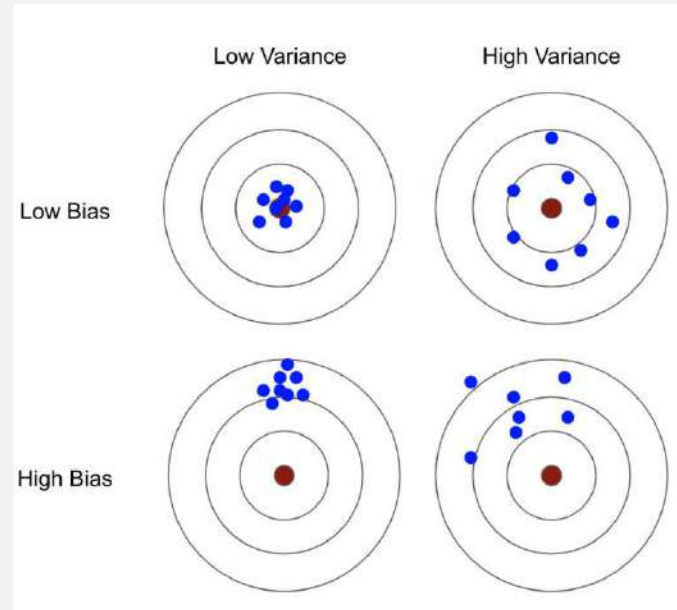
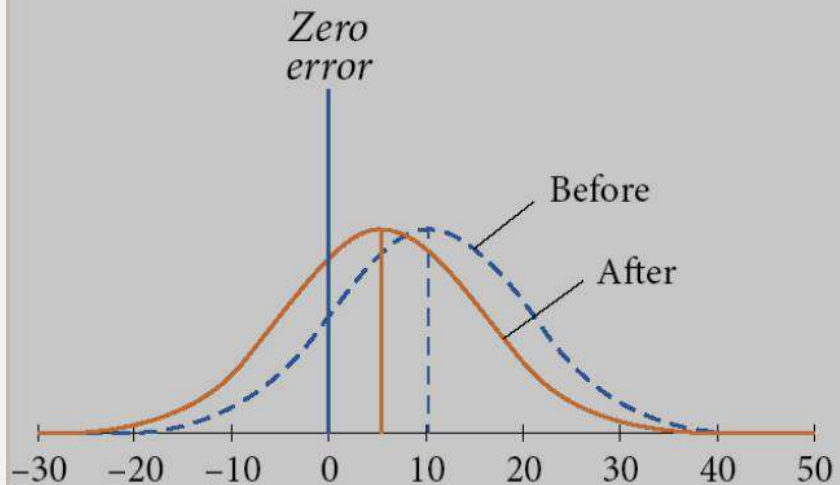
There is a significant scientific and practical evidence that us human beings are biased and prone to errors when we make decisions. Our evolutionary design play tricks on us.

(* 2 Nobel Prizes have been awarded for studies on this issue).

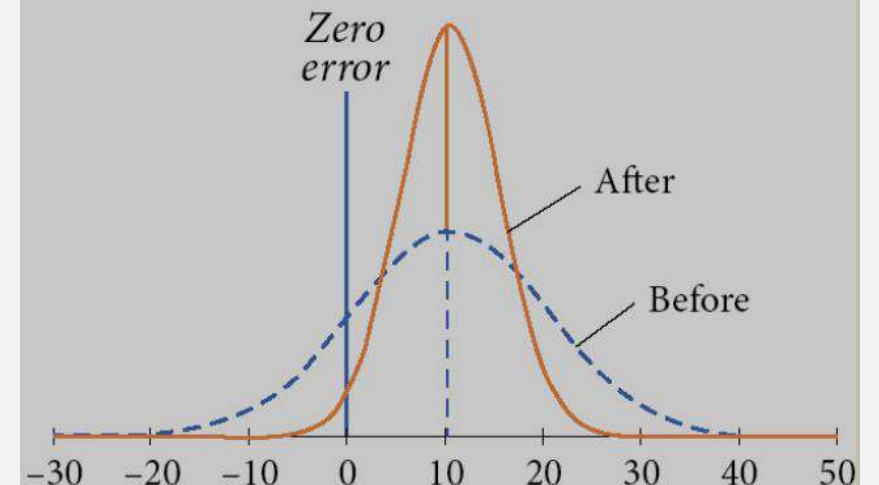


NOISE AND BIAS: THE SYMPTOMS OF ERROR

Panel A: Same Noise, Less Bias



Panel B: Same Bias, Less Noise

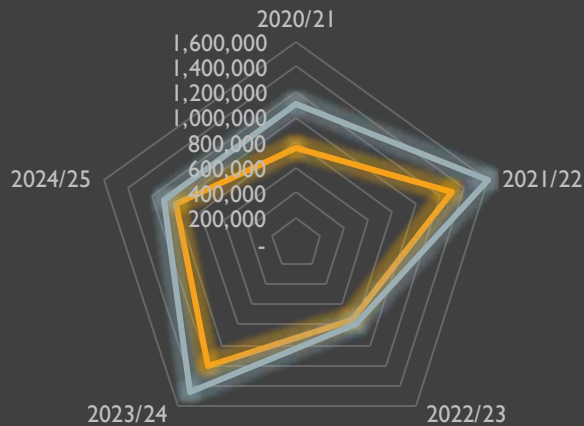




FOUR DIFFERENT LEVELS OF TOLERANCE TO NOISE AND BIAS IN FARM MANAGEMENT

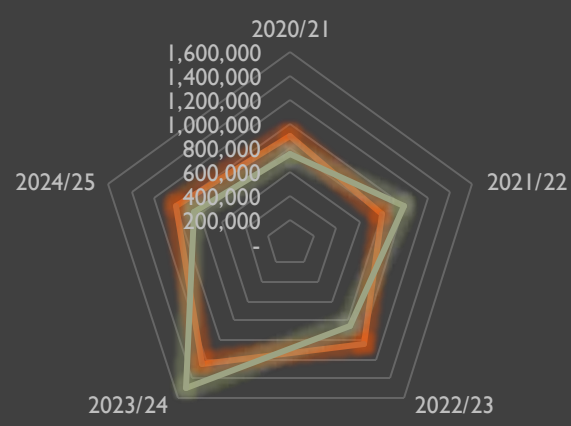
Case A: High Noise, High Bias

— Caso A (Real) — Caso A (Forc)



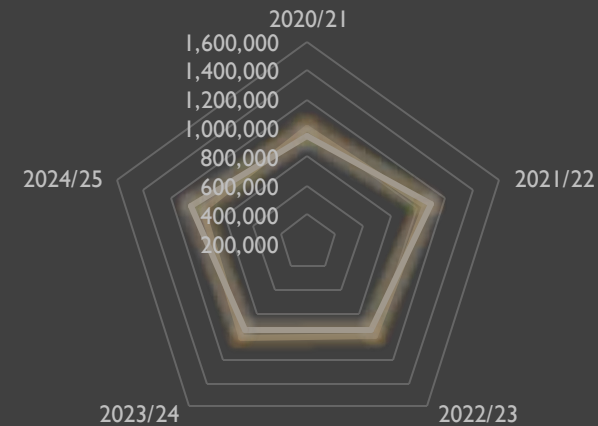
Case B: High Noise, Low Bias

— Caso B (Real) — Caso B (Forc)



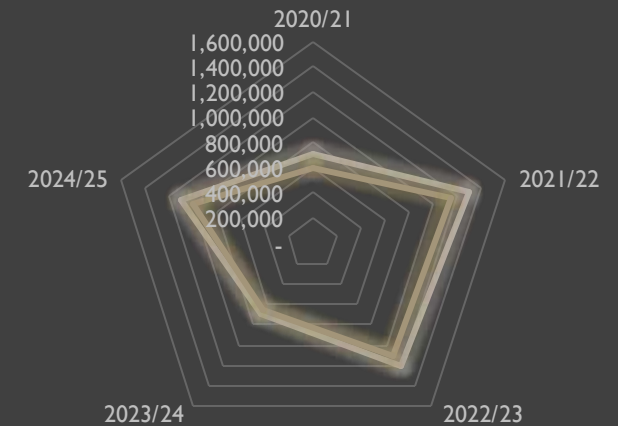
Case C: Low Noise, Low Bias

— Caso C (Real) — Caso C (Forec)



Case D: Low Noise, High Bias

— Caso D (Real) — Caso D (Forec)

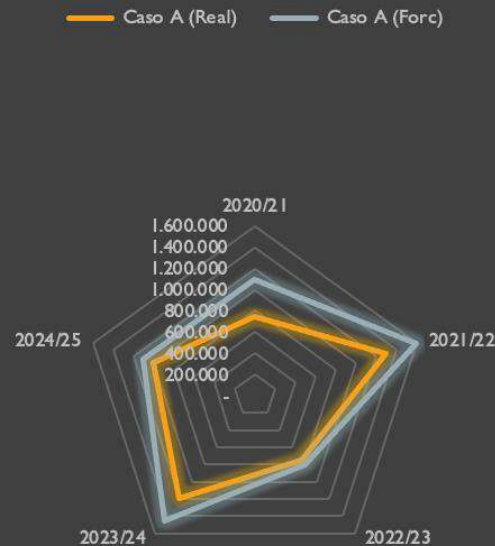




WHAT KIND OF COMPANY WOULD YOU LIKE TO BE PART OF?

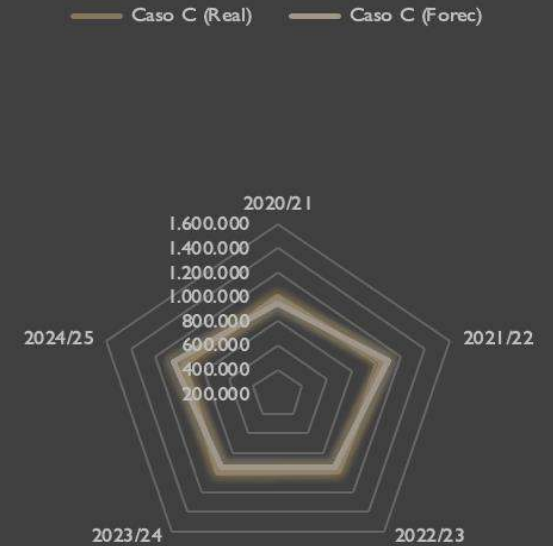
- Oversupply of money, people, truck and vessel bookings, materials (financially expensive)
- Carry-over stock of materials
- Less fruit = lower picker productivity (higher costs)
- Customers constantly undersupplied (not very happy...). Look to complement fruit elsewhere
- Unfulfilled budget

Case A: High Noise, High Bias







- Optimum level of resource utilization
- Very reliable supplier in the eyes of importers (reputation brings new customers)
- Very reliable company in the eyes of banks and investors
- Budget fulfilled
- High company morale

Case C: Low Noise, Low Bias





SOME TYPES OF HEURISTICS AND EXAMPLES OF TYPICAL BIASES

CATEGORY	DEFINITION	EXAMPLES
<p>AVAILABILITY</p> 	<p>INFERENCES we make about ease of retrieval from memory</p>	<ul style="list-style-type: none">• “A technical consultant who is very active in promoting her/himself through social media, seminars, events, comes easy to memory”. Not necessarily the best option.
<p>REPRESENTATIVE</p> 	<p>Look for traits in an event that falls in a previously known category or STEREOTYPE</p>	<ul style="list-style-type: none">• “An agrochemical company advertising that “9 out of 10 growers recommends fertilizer X...”. Are they really representative sample of growers? Is there a bias?
<p>CONFIRMATION</p> 	<p>Intuitive selection of data that unconsciously confirms a previously FOREJUDGED HYPOTHESIS</p>	<ul style="list-style-type: none">• “Growers I know have told me that all Importers from country X are unreliable, so I decided to avoid that market”. Are you talking only to people that confirms your hypothesis?
<p>AFFECT</p> 	<p>A decision taken by an EMOTIONAL EVALUATION rather than higher-level reasoning.</p>	<ul style="list-style-type: none">• When searching for a new farm manager, your headhunter selects 4 candidates. You interview them separately. You like the CV of one but experience a negative “gut-feeling” when interviewing the person. A couple of days later, you meet a supplier that owes you money. You notice that he looks very much like the candidate you had negative feelings about.



SOME EXAMPLES OF IMPORTANT DECISIONS IN THE BERRY BUSINESS CYCLE

GROWER

- Which customers or sales channels should I work with next season?
- Should I outsource processing and exports or should I take care myself?
- To which markets should I send my products?
- How much operational capital will I require from the financial system?
- Should I hire a new farm manager?
- Should I hire a technical consultant? If yes, Who?
- What is the minimum anticipated payment or minimum guarantee I should accept?
- Should I look for a financial partner for further growth?
- Should I grow?

EXPORTER

- How much should I pay as a minimum guaranteed to the grower?
- Should I renew cooperation with grower X?
- Until which week should I plan exports to market X?
- How many kilos should I allocate to every market? In which format?
- Which importers should we work with in market X?
- Should we keep on exporting varieties X, Y and Z?
- Should we push fruit in the standard format A?
- What level of disclosure should I have with growers?
- Should I expand to new markets?
- Should I invest in own farms to have control of production?



STRATEGIES AND TOOLS TO MAKE BETTER DECISIONS*

TOOLS AND PROCEDURES

- Use PRESCRIPTIVE DECISION MAKING PROCEDURES
- Acquire EXPERTISE (not experience)
- DEBIAS your judgment
- REASON ANALOGICALLY
- Take an OUTSIDERS' VIEW
- Identify BIAS IN OTHERS

DECISION MAKING AUDIT

- Have the LEADER ON-BOARD the project
- SELECT AN AREA to work upon
- Appoint a PROJECT MANAGER (internal or external)
- Select a PROJECT TEAM (somebody from administration is a key participant)
- REPORT RESULTS (evaluate benefits and costs)
- If benefits higher than costs, design an IMPLEMENTATION PLAN
- MONITOR RESULTS

* Extracted from Bazerman (Managerial Decision Making) and Kahneman (Noise, Think Fast & Slow)



TAKE AWAYS

CONCLUSIONS

- 1) A lot of MONEY IS WASTED AND COMPETITIVENESS LOST due to poor decision making.
- 2) Good decision making is more important than ever in an INCREASINGLY COMPLEX AND DYNAMIC BUSINESS ENVIRONMENT.
- 3) Individual and group decision-making skills CAN DEFINITELY BE IMPROVED through awareness and training.
- 4) Low Noise and Low Bias companies are MORE PROFITABLE, MORE COMPETITIVE AND BETTER BUSINESS PARTNERS.
- 5) NOISE AND BIAS CAN AND MUST BE REDUCED. There is too much at stake.

CALL TO ACTION

- a) ANALYSE YOUR THOUGHT PROCESSES WHEN EXPOSED TO A DECISION (be it strategic, tactical or operational). IT IS CHEAP AND EASY.
- b) IDENTIFY AND CLASSIFY YOUR OWN HEURISTICS (EX. "I have used availability heuristics when ...")
- c) Be brave: CARRY OUT A DECISION MAKING AUDIT. Do it gently and mindfully. Quantify benefits and costs of the results.
- d) If benefits are of considerable magnitude, EXPAND AUDIT TO OTHER AREAS.
- e) You are now ready to start implementing a HEALTHY DECISION MAKING CULTURE in your company.

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THANKS FOR YOUR ATTENTION!



If you are interested in related bibliography or further information, please, contact Siham or Jorge.