#### **Cam Nicholson**

Making the decision to transition (or not) to multispecies pastures





## Just because we make decisions all the time doesn't mean we are good at making them!

# When were you taught to make a <u>good</u> decision?

(The same way you were taught to read, write and do arithmetic)



#### Thinking through a good decision





## The 8 step decision matrix



#### **Step 1: Define the decision.**

**Decision:** Should I sow multispecies pasture?

**Step 2 (optional):** Define <u>when</u> the decision needs to be made.

**Step 3:** List the major considerations (critical factors) that should influence the decision.





Critical factors



Critical factors



**Critical factors** 

Persistence compared to current feedbase

Pasture growth pattern

Opportunity to manipulate the growth pattern

Cost of 'transition'

Managing pasture quality

Opportunity to make silage

#### Step 4: For each major consideration ask:



#### at what point would I think differently about my response? (tipping points)

Critical factors		Consideration (tipping points)
	Persistence compared to Will improve feedbase persistence (less resowin	Will improve feedbase persistence (less resowing)
	reisistenee eennperee te	No significant change
	CUTTENT	Will decrease feedbase persistence (more resowing)

HINT: Describe the most favourable and then the least favourable results that supports the decision



	Critical factors	Consideration (tipping points)
Well above average	Persistence compared to	Will improve feedbase persistence (less resowing)
· · ·	current feedbase	No significant change
Critical factors below have "tipping average	current recubase	Will decrease feedbase persistence (more resowing)
points"		Will be positive to our pasture growth at critical times
	Pasturo growth pattorn	Will be positive to our pasture growth but at non critical times
	Fasture growin pattern	No significant change
		Will detract from our current pasture growth pattern
	Opportunity to manipulate the	High, have the tools and confidence to do so
	growth pattern	Unsure of the likely responses (e.g. to N, Gibb acid etc)
		Costs similar to current resowing program
	Cost of 'transition'	Costs greater but can be managed
		Costs significant
	Managing pasturo quality	Have the skill, confidence and capacity to manage quality issues
	Managing pasture quality	Unsure about managing quality issues
	Opportunity to make silago	High, will make good silage
	opportunity to make shage	Low, will have quality issues



Critical factors have "tipping points"

### Step 5: Assign values to each description

Not all critical factors are of equal importance

$\wedge \wedge \land$
HINT: Assign all
least favourable descriptions
zeros
$\square \land \square$



Critical factors	Consideration (tipping points)	Values
Persistence compared to	Will improve feedbase persistence (less resowing)	
current feedbase	No significant change	
current recubase	Will decrease feedbase persistence (more resowing)	0
	Will be positive to our pasture growth at critical times	
Pasture growth pattern	Will be positive to our pasture growth but at non critical times	
Fasture growin pattern	No significant change	
	Will detract from our current pasture growth pattern	0
Opportunity to manipulate the	High, have the tools and confidence to do so	
growth pattern	Unsure of the likely responses (e.g. to N, Gibb acid etc)	0
	Costs similar to current resowing program	
Cost of 'transition'	Costs greater but can be managed	
	Costs significant	0
Managing pasture quality	Have the skill, confidence and capacity to manage quality issues	
	Unsure about managing quality issues	0
Opportunity to make silage	High, will make good silage	
opportunity to make sitage	Low, will have quality issues	0

### Step 5: Assign values to each description

Not all critical factors are of equal importance

HINT: Assign values to the most favourable descriptions relative to each other (rank first)



Critical factors	Consideration (tipping points)	Values
Persistence compared to	Will improve feedbase persistence (less resowing)	12
	No significant change	
current recubase	Will decrease feedbase persistence (more resowing)	0
	Will be positive to our pasture growth at critical times	12
Desture growth pattern	Will be positive to our pasture growth but at non critical times	
Fasture growin pattern	No significant change	5
	Will detract from our current pasture growth pattern	0
Opportunity to manipulate the	High, have the tools and confidence to do so	8
growth pattern	Unsure of the likely responses (e.g. to N, Gibb acid etc)	
	Costs similar to current resowing program	6
Cost of 'transition'	Costs greater but can be managed	
	Costs significant	0
Managing pasture quality	Have the skill, confidence and capacity to manage quality issues	6
Managing pasture quality	Unsure about managing quality issues	0
Opportunity to make silage	High, will make good silage	4
opportunity to make sitage	Low, will have quality issues	0

### Step 5: Assign values to each description

Not all critical factors are of equal importance

Critical factors Consideration (tipping points)		Values
Porsistance compared to	Will improve feedbase persistence (less resowing)	
current feedbase	No significant change	6
current recubase	Will decrease feedbase persistence (more resowing)	0
	Will be positive to our pasture growth at critical times	12
Pasture growth pattern	Will be positive to our pasture growth but at non critical times	10
Fasture growin pattern	No significant change	5
	Will detract from our current pasture growth pattern	0
Opportunity to manipulate the	High, have the tools and confidence to do so	
growth pattern	Unsure of the likely responses (e.g. to N, Gibb acid etc)	0
	Costs similar to current resowing program	6
Cost of 'transition'	Costs greater but can be managed	4
	Costs significant	0
Managing pasture quality	Have the skill, confidence and capacity to manage quality issues	6
	Unsure about managing quality issues	0
Opportunity to make silago	High, will make good silage	4
opportunity to make sitage	low, will have quality issues	0



#### Step 6: Determine the possible decisions

**Decision:** Should I sow multispecies pasture?

Read all best descriptions – what would you do?

Will improve feedbase persistence (less resowing) Will be positive to our pasture growth at critical times Have the tools and confidence to manipulate the growth pattern

Transition costs are similar to current resowing program

Have the skill, confidence and capacity to manage quality issues

Species will make good silage



& CONS

Make decisions

'on balance'



### **Step 6:** Determine the possible decisions

Make decisions

**Decision:** Should I sow multispecies pasture?

Repeat for all the worst descriptions

De	cisi	ion
		••••

Yes sow multi species pasture

No, don't sow



Step 7: Assign an interim 'on balance' value



Add up all the maximum values for the critical factors (48)

Multiply the maximum value by 0.7

'On balance' value is =33.6 (48 x 0.7)



#### Step 7: Assign an interim 'on balance' value

Decision: Should I sow a multi species pastture		
Critical factors Consideration (tipping points)		Values
Porsistance compared to	Will improve feedbase persistence (less resowing)	12
current feedbase	No significant change	6
Current lecubase	Will decrease feedbase persistence (more resowing)	0
	Will be positive to our pasture growth at critical times	12
Pacture growth pattern	Will be positive to our pasture growth but at non critical times	10
Pasture growin pattern	No significant change	5
	Will detract from our current pasture growth pattern	0
Opportunity to manipulate the High, have the tools and confidence to do so		8
growth pattern Unsure of the likely responses (e.g. to N, Gibb acid etc)		0
	Costs similar to current resowing program	6
Cost of 'transition'	Costs greater but can be managed	4
	Costs significant	0
Managing pasturo quality	Have the skill, confidence and capacity to manage quality issues	6
	Unsure about managing quality issues	0
Opportunity to make sile co	High, will make good silage	4
Opportunity to make sitage	Low, will have quality issues	0
	Maximum value	48



Dairy Australia
Austialia

Decision	Value
Yes sow multi species pasture	Greater than 33
No, don't sow	33 or less

#### Step 8: Scenario testing

Critical factors	Consideration (tipping points)	Values	Score
Persistence compared to	Will improve feedbase persistence (less resowing)	12	
current feedbase	No significant change	6	12
current reeubase	Will decrease feedbase persistence (more resowing)	0	
	Will be positive to our pasture growth at critical times	12	
Pasture growth pattern	Will be positive to our pasture growth but at non critical times	10	10
Fasture growin pattern	No significant change	5	10
	Will detract from our current pasture growth pattern	0	
Opportunity to manipulate the	High, have the tools and confidence to do so	8	0
growth pattern	Unsure of the likely responses (e.g. to N, Gibb acid etc)	0	0
	Costs similar to current resowing program	6	
Cost of 'transition'	Costs greater but can be managed	4	4
	Costs significant	0	
Managing pasture quality	Have the skill, confidence and capacity to manage quality issues	6	6
Managing pasture quarty	Unsure about managing quality issues	0	0
Opportupity to make sile so	High, will make good silage	4	Λ
opportunity to make sitage	Low, will have quality issues	0	4
	Maximum value	48	36



Decision	Value
<b>Yes</b> sow multi species pasture	Greater than 33
No, don't sow	33 or less

#### What I like about the decision matrix

• It slows down your thinking

• It makes it transparent for others to contribute / follow

• Narrows down what information you want and the skills you need









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#### Dashboard

#### Dashboard / Decision and Timing / Considerations / Conditions / Relative values / Decision Table / Decision Scores / Scenario Testing

If You haven't defined any decisions yet appears, then no decisions have been saved.

Clicking on Define a decision starts the process.

#### Define a decision

These are your previous decision matrices. Click on the appropriate decision to reload the matrix. Once loaded the decision matrix can be printed, exported or modified. If adjustments are made make sure you save the changes. If you wish to save the original as well as a changed version, then the new version needs to have a slight difference in the decision description. This could be as easy as a (2) after the decision description.



https://sfs.org.au/tool/decision-wizard

## Building a decision matrix