

Weekly Farm Summary 30th September 2022

Farm-system impacts of: Kale vs Fodder beet for winter AND Reducing N loss to water by 30%.

	Conserved Pasture – Std Pink	Conserved Pasture - LI Blue	Fodder beet – Std Green	Fodder beet – LI Yellow
Farmlet area including wintering	82.7	60.9	82.7	60.9
Peak cow numbers	223	137	223	137
Milking Area	73.8	55.1	73.8	55.1
Current Herd size (cows)	210	130	205	135
Pasture Stocking rate (current)	2.8	2.4	2.8	2.5
Winter Feed Milking supplement	Swede/Bale	Baleage	Beet 80 days	Beet 60 days
	In-shed feed 500kg/cow + baleage as required			
Average Cover	2344	2263	2378	2445
Average Growth	57	62	55	60
Target rotation length	22	26	22	26
Last week act rotation (d)	31	27	29	35
Last week supp (kg DM/cow)	5.9	2.6	2.1	1.9
Average BCS – In milk cows	4.7	4.7	4.6	4.7
% of herd on priority feeding	3%	4%	7%	6%
Milk yield (L/cow)	25.0	26.5	25.0	26.1
Milk yield (kgMS/cow)	2.18	2.32	2.17	2.23
Nitrogen Cap kgN/ha/yr	180	50	180	50
% Nitrogen used (kgN/ha) YTD	18% (32kg)	18% (9kg)	17% (31kg)	18% (9kg)
Effluent N YTD	1	0	1	2
Profit/ha comp to Control	\$0	\$0	\$0	\$0
YTD supp (kg DM/cow)	217	142	180	133
YTD MS/cow	67	72	65	72
YTD MS/milk ha (YTD MS/farm ha)	202 (181)	178 (161)	196 (175)	179 (162)

Business Area	Current Status
Milk Production	Continues to rise steadily across all herds
Pasture & Feed	Silage stack has been closed. Have completed first round for all farmlets, approximately 7 days earlier than planned. Growth is now exceeding demand. In-shed supplements reduced to the lowest amount required to meet daily mineral supplementation requirements.
Animals	Animal health is good with incidences of mastitis, lameness and down cows limited to 1-2 animals. Next group to be Metri-checked is 3 rd October. A lot of oestrus activity being observed in the paddock and identified by the collars. Next BCS week beginning 3 Oct
Environment	Effluent applications continue to follow the cows. Whole farm has completed its first application of nitrogen fertiliser
Wintering	Less than 40 cows to calve. Groundwork of wintering paddocks has started
People	Team members taking leave over next 2-3 weeks. Team celebrated the near end of calving and a job well done with a dinner this week
Research	Refining details for 2023-24 farm systems setup. Farmer Reference group meet to discuss the pros and cons of some proposed farm system changes for next season

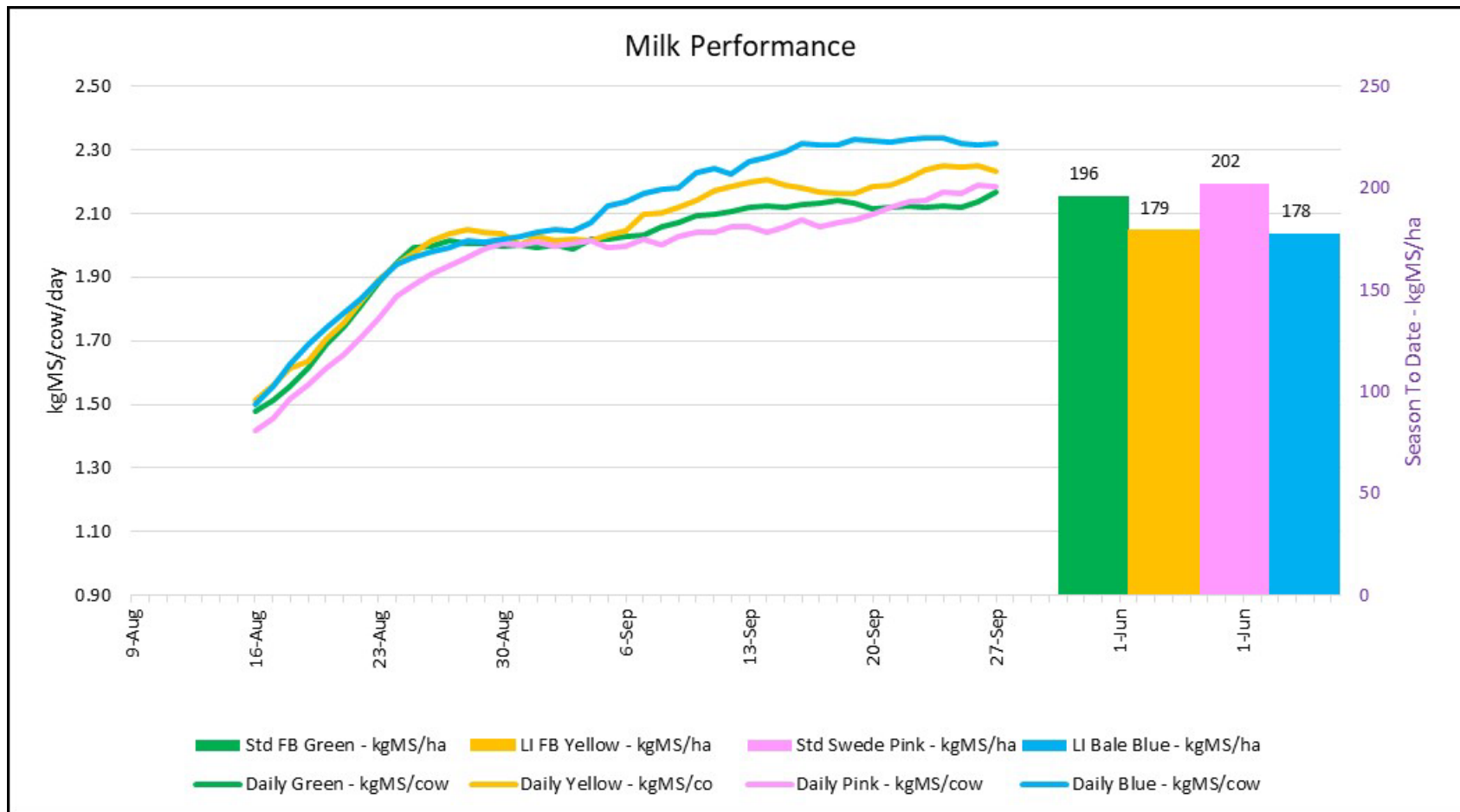
Milk Production

Principles of Milk Production management this week

Milk Production	Year to date (YTD) production (kgMS/ha) for the standard herds continues to be higher than the lower impact herds, with all herds significantly ahead of last season. Both lower impact herds have higher kg MS/cow/day
Key Influences on Milk Production	Cows are well feed given the abundance of pasture available. We are being proactive with managing feed quality for the next round by stepping over paddocks above the pre-graze target and x1 paddock has been topped.
Cow Management	Majority of the cows milked TAD with some animals continuing to be milked OAD to protect BCS and aid recovery post calving

	Conserved Pasture - Std Pink	Conserved Pasture - LI Blue	Fodder beet - Std Green	Fodder beet - LI Yellow
kg Milksolids per cow this week / (last week)	2.18 (2.13)	2.32 (2.36)	2.17 (2.13)	2.23 (2.21)
kg Milksolids per ha this year / (same time last year)	202 (181)	178 (161)	196 (175)	179 (162)
% Var kg Milksolids per ha Season per ha to date vs last season to date	16.6	11.2	21.3	14.7
No. of Cows needing preferential feeding (% herd)	6 (3)	5 (4)	14 (7)	6 (4)
Animal health peculiarities	None	None	None	None

Milk Production



Feed

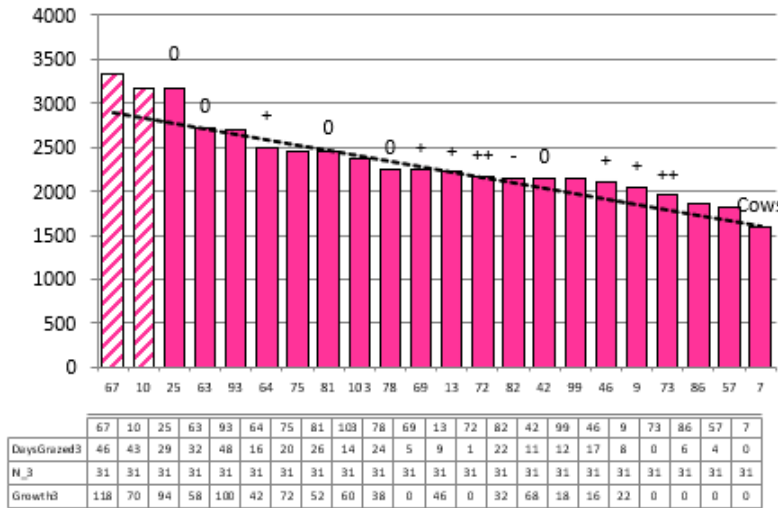
Principles of Feed management this week

Feed Quality	Finished the first round at the end of last week. Second round paddocks looking great. Dry matter tests are good for this time of year at 18%. Target residuals on some round two paddocks not met, sending cows back to clean up and x1 paddock has been topped. Will only post graze mow where clumps of pasture need to be managed. One 2 nd year pasture paddock per farmlet aerated this week
Growth Rate Management	Soil and ambient temperatures are ideal with growth rates suggesting we have hit balance date. Will continue to keep herds on their fastest rotation over the next week (22-26 days for the standards versus the lower impacts, excluding springer paddocks), in-shed feeding to remain the same. Any paddocks above the pre-graze target will be stepped over for conservation. Approximately 27 ha has been mown for baleage.
Nitrogen Strategy	First round of nitrogen fertiliser application for all farmlets completed. Round two applications (30 kg N/ha) for the standard herds will commence early October, targeting paddocks no more than 7 days since last grazing. Second round (12.5 kg N/ha) for the LI herds will commence around the 20 th of October.

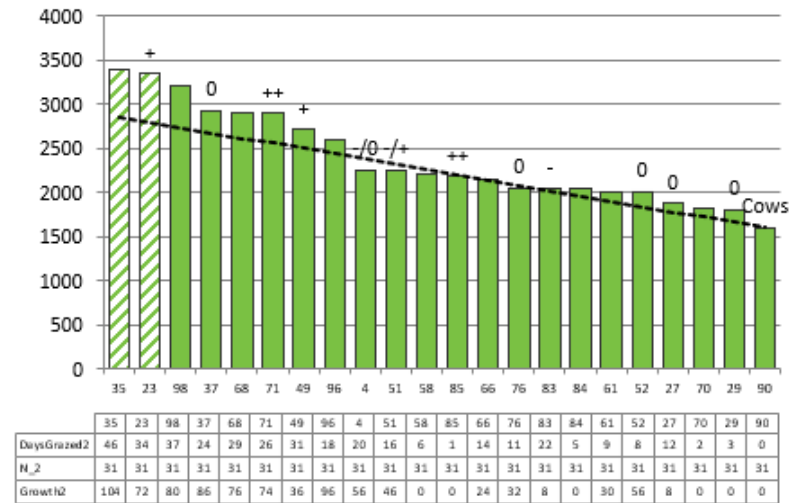
	Conserved Pasture - Std Pink	Conserved Pasture - LI Blue	Fodder beet - Std Green	Fodder beet - LI Yellow
Quantity	In surplus	In surplus	In surplus	In surplus
Quality	Variable depending on paddock history	Variable depending on paddock history	Variable depending on paddock history	Variable depending on paddock history
Surplus Management	Baleage made	Baleage made	Baleage made	Baleage made
Deficit Management - kgDM (diff from last week)	1.0 (-4.9)	1.0 (-1.6)	1.0 (-1.1)	1.0 (-0.9)
Target Rotation Length (days)	22	26	22	26

Feed

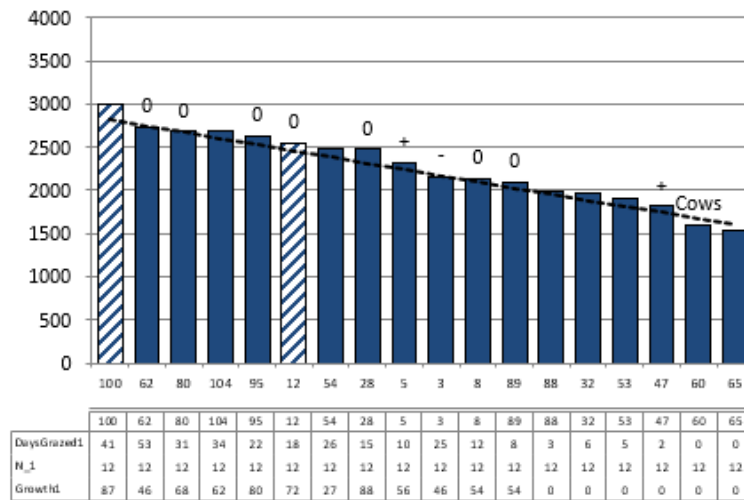
Standard Conserved Pasture



Standard Fodder Beet



Lower Impact Conserved Pasture



Lower Impact Fodder Beet

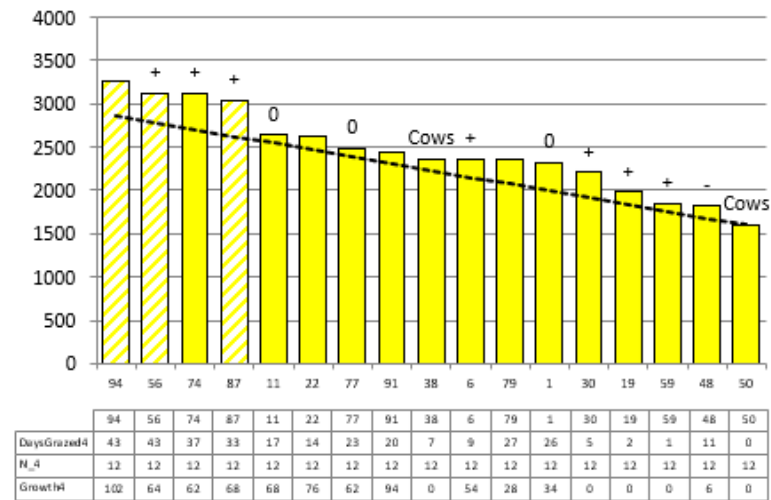
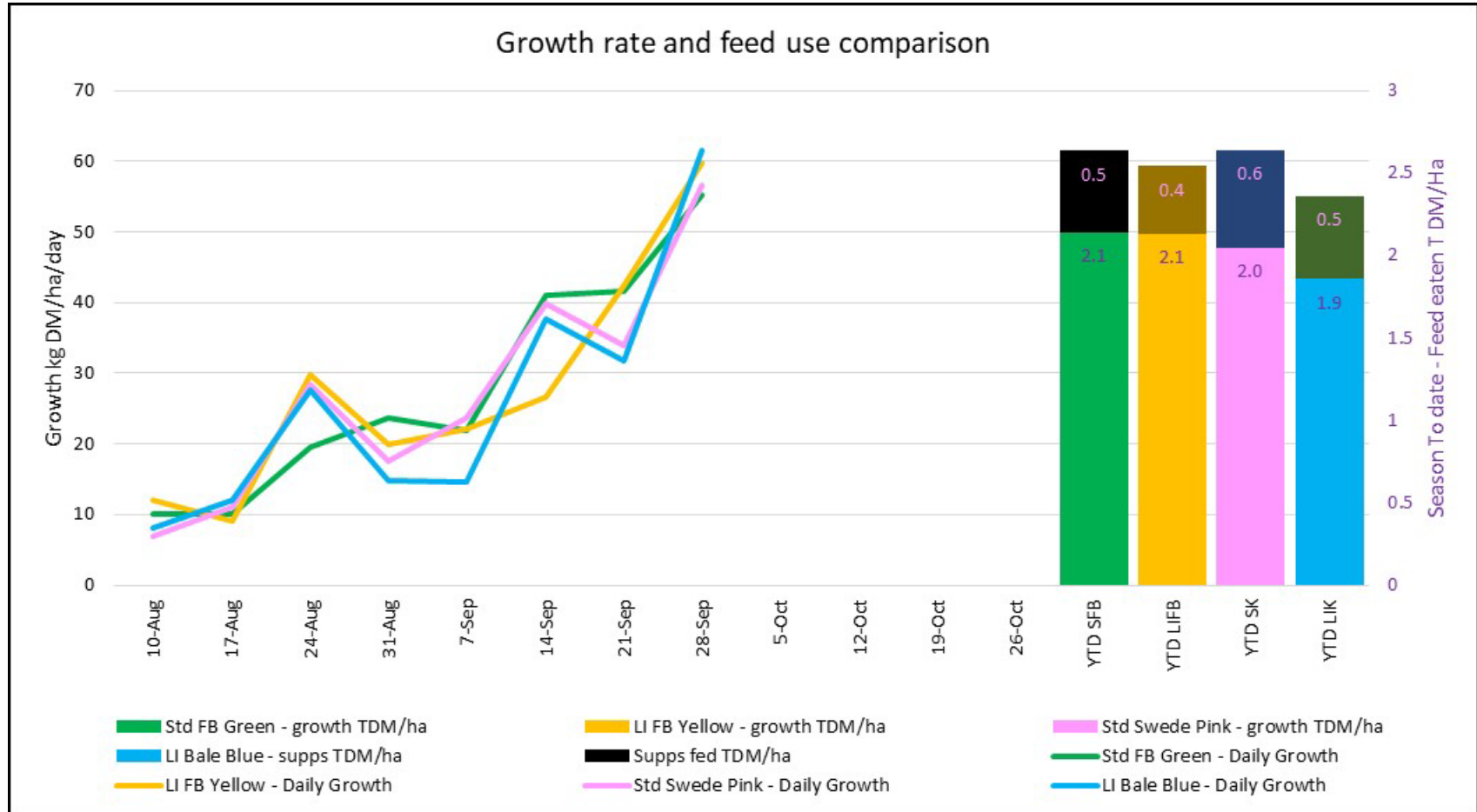


Figure 2: Feed Wedges as of 28th September 2022 (shaded bars are paddocks out for conservation)

Feed



Research

<p>Farm system revision for 2022-23 season</p>	<p style="text-align: center;">WHY</p> <ul style="list-style-type: none"> Delay to the wintering infrastructure build by 12 months provided an opportunity for forensic investigation of unexplained system results from the 2018-2022 farm comparison and testing of some of the proposed changes in herd size and wintering practices for the next farm system comparison utilizing the infrastructure 																																							
<p>Unresolved issues/frustrations from 2018-2022 Research</p>	<p style="text-align: center;">ISSUES</p> <ol style="list-style-type: none"> Herd sizes and paddock allocations did not allow easy implementation of sensible grazing rotations i.e., rotations were either too long or too short which impacted on total pasture production (too short), pasture quality and utilization (too long) and milk production Fodder beet herds did not match production of the kale herds in early lactation despite better BCS at calving. Was this a carryover effect from fodder beet feeding OR different lactation supplementary feeding strategies? Application timing of the 50 kg N/ha/annum negatively affected feed quality and growth rate <p style="text-align: center;">RESEARCH HYPOTHESIS</p> <ol style="list-style-type: none"> Production differential between Std Kale and FB herds will be reduced by replacing lactation fodder beet with inshed feeding Reshaping the N fertilizer curve for the LI herds will improve pasture growth and quality reducing the post peak production differential compared to the Std herds Reducing fodder beet intake during winter will increase peak milk production and reduce animal health issues Optimising rotation length will increase pasture growth and quality for all herds 																																							
<p>2022-23 Farmlets</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 20%;"></th> <th style="width: 15%; background-color: #FFC0CB;">Std Conserved Pasture Pink</th> <th style="width: 15%; background-color: #ADD8E6;">LI Conserved Pasture Blue</th> <th style="width: 15%; background-color: #90EE90;">Std Fodder beet Green</th> <th style="width: 15%; background-color: #FFFF00;">LI Fodder beet Yellow</th> </tr> </thead> <tbody> <tr> <td>Farmlet area including wintering</td> <td>82.7</td> <td>60.9</td> <td>82.7</td> <td>60.9</td> </tr> <tr> <td>Wintered cow numbers</td> <td>230</td> <td>141</td> <td>230</td> <td>141</td> </tr> <tr> <td>Milking Area</td> <td>73.8</td> <td>55.1</td> <td>73.8</td> <td>55.1</td> </tr> <tr> <td>2023 Wintering</td> <td>Half on brassica; half on baleage</td> <td>Baleage</td> <td>Extended FB (off 2 weeks pre-calving)</td> <td>Optimised FB (off 4 weeks pre-calving)</td> </tr> <tr> <td>N Strategy</td> <td>180 kg N/ha/annum (7 applicns)</td> <td>180 kg N/ha/annum (7 applicns)</td> <td>60kgN/ha/annum, x4 applicns of 12.5 kg N/ha</td> <td>60kgN/ha/annum, x4 applicns of 12.5 kg N/ha</td> </tr> <tr> <td>Lactation supplement</td> <td>Inshed, baleage</td> <td>Inshed, baleage</td> <td>Inshed, baleage</td> <td>Inshed, baleage</td> </tr> </tbody> </table>						Std Conserved Pasture Pink	LI Conserved Pasture Blue	Std Fodder beet Green	LI Fodder beet Yellow	Farmlet area including wintering	82.7	60.9	82.7	60.9	Wintered cow numbers	230	141	230	141	Milking Area	73.8	55.1	73.8	55.1	2023 Wintering	Half on brassica; half on baleage	Baleage	Extended FB (off 2 weeks pre-calving)	Optimised FB (off 4 weeks pre-calving)	N Strategy	180 kg N/ha/annum (7 applicns)	180 kg N/ha/annum (7 applicns)	60kgN/ha/annum, x4 applicns of 12.5 kg N/ha	60kgN/ha/annum, x4 applicns of 12.5 kg N/ha	Lactation supplement	Inshed, baleage	Inshed, baleage	Inshed, baleage	Inshed, baleage
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Photo

