

Single service

- Sure it will save me a lot of time but really?
- Is it worth the risk?

Or is something the industry does not have a choice?

Science-driven solutions $^{@}$

Lets put it all together (say) We wean on Thursday and heat check three times a day:

	Fr	iday		Sat	turday			Sunday			Monda	y		- Tuesda	y	W	ednes	day	T	hursday	,	F	riday	
	1	2	3	1	2	3	1	2	3	1	2	. 3	1	2	3	1		2 3	1	2	3	1	2	3
Friday								-			罗													
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Monday							Sci	en	CP	<u>-</u> d	riv	en	C/		tio	n n	R							
Tuesday							701			u			30											
Wednesday																								
Thursday																								
Friday																								

Lets put it all together (say) We wean on Thursday and heat check three times a day

	Fr	iday		Sat	urday			Sunday	7	М	onday	4	Tues	dav		W	edne	esday		Th	ursday		F	riday		
	1	2	3	1	2	3	1	2	 3	1	2	3	l _	2	3	1		2	3	1	2	3	1	2	3	
Friday										A	5															
Saturday						+							 1	7		Z										
Sunday							1	7																		
Monday								er		di	civ	O			<i>Li</i>	<u> </u>		R								
Tuesday								C / I		G _I	<i>1 V</i>	CI	O1	u		ווע	5									
Wednesday																										
Thursday																										
Friday																										

Lets put it all together

The time when the population are in standing oestrus

									The !		0,0								
	Frid			turday		Sund		Monda		Tues			nesday		Thurs			riday	
	1	2 3	1	2	3	1	2 3	1 2	3	1	2 3	1	2	3	1	2 3	1	2	3
Friday							1	72					11						
Saturday												1 1							
Sunday								AL											
Monday						scie	nce	-driv	ver										
Tuesday																			
Wednesday																			
Thursday															TH.				
Friday																			

• The length of the standing oestrus is longer in sows with a shorter wean to service interval

• And likewise the length is shorted in sows with a longer wean to service interval

Science-driven solutions $^{@}$

Lets put it all together

The time when the population are in standing oestrus

									The !		0,0								
	Frid			turday		Sund		Monda		Tues			nesday		Thurs			riday	
	1	2 3	1	2	3	1	2 3	1 2	3	1	2 3	1	2	3	1	2 3	1	2	3
Friday							1	72					11						
Saturday												1 1							
Sunday								AL											
Monday						scie	nce	-driv	ver										
Tuesday																			
Wednesday																			
Thursday															TH.				
Friday																			

Lets put it all together

The time when the population are in standing oestrus

	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
	1 2 3	3 1 2 3	1 2 3	1 2	3 1 12 5 3	1 2 3	1 2 3	1 2 3
Friday				721				
Saturday					11/1	7-11		
Sunday								
Monday			Science	-drive	n soluti	ions [®]		
Tuesday								
Wednesday								
Thursday								
Friday								

Lets put it all together

Ovulation occurs 70% of the way through standing oestrus

				44				
	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
Friday	1 -2 3	1 2 3	1 2 3	1		3 1 2 3	1 2 3	1 2 3
Saturday					0/1	7-11		
Sunday								
Monday			Science.	-drive	n soluti	ons		
Tuesday					-			
Wednesday								
Thursday								
Friday								



Lets put it all together

Ovulation occurs 70% of the way through standing oestrus. Note the eggs

only last 6 hours!

	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
	1 2 3	1 2 3	1 2 3	1 -2 3	1 7 3 /12	1 2 3	1 2 3	1 2 3
Friday				X		7//		
Saturday			1110		0/1	7-71		
Sunday			All					
Monday			cience.	-driven	soluti	ons		
Tuesday								
Vednesday								
Thursday								
Friday								

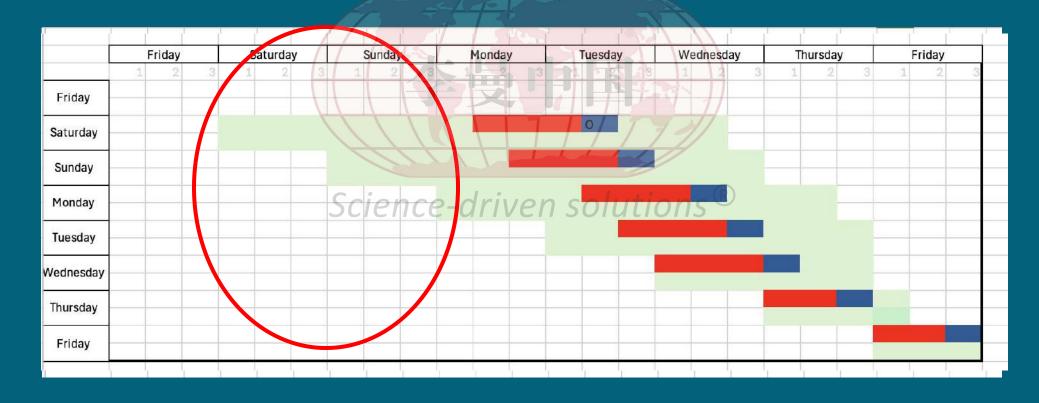


Lets put it all together

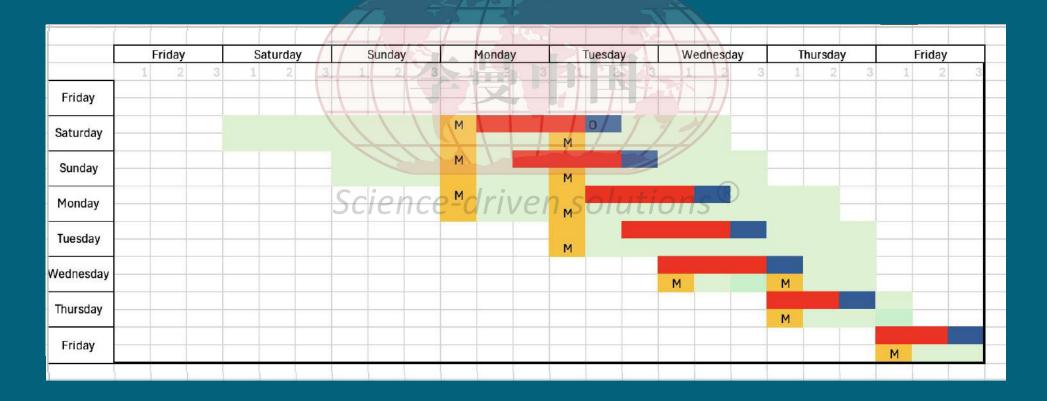
Sperm will live 28+ hours in the oviducts

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	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
	1 2 3	1 2 3	1 2 3	1 2 3		3 1 2 3	1 2 3	1 2 3
Friday				X		17 1/		
Saturday					0/1	7-11		
Sunday			The					
Monday			Science	-driver	n soluti	ions®		
Tuesday								
Wednesday								
Thursday								
Friday								

Lets put it all together
Grandfather was right and wrong



Lets put it all together
So making this practical with breeding in morning only am/am



Lets put it all together Lets simplify further into single service

	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
	1 2 3	1 2 3	1 2 3	2 3		1 2 3	1 2 3	1 2 3
Friday								
Saturday			1/10	Н	M	7/		
Sunday				Н	M			
Monday		5	cience-	driver	Solution	ons (B)		
Tuesday					М			
Wednesday						М		
Thursday							M	
Friday								M
					+ , + , + , -	 		

Does it work?

Breeding	#	#	FR %	Total
	bred	farrow	T. V.	born/sow
Single	3903	3455	89	13.3
Double	4066	3375	83	13.3

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Litter effect

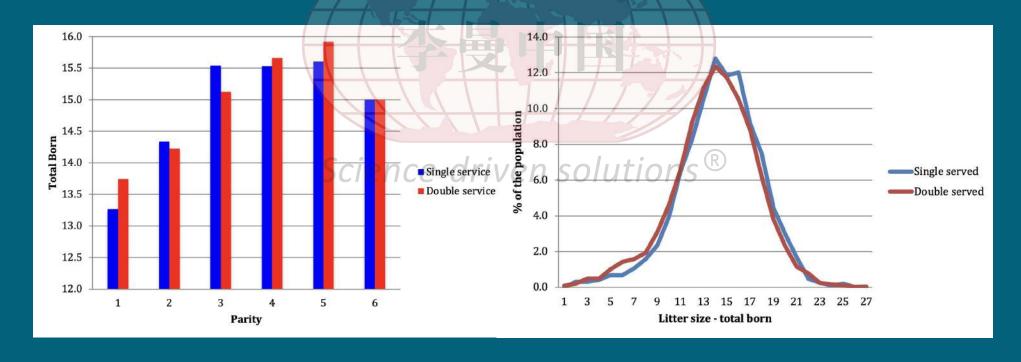
Total born

There is a significant difference is favour of single service.

Service type	Total born	Number of sows	
Single service	15.4	1916 farrowing	ttest < 0.001 significant
Double service	15.0	5410 farrowings	

Breakdown

Type:	Total	Born alive	Strong	Weak	Dead	Stillborn	Mummified
Single	15.4	14.2	12.5	1.71	1.2	0.93	0.28
Double	15.0	13.9	12.2	1.65	1,1	0.84	0.24



Why take the risk?

- Very similar arguments presented when industry was routine 3+ services vs today standard 2 services
- But today with AI the benefits can be rapidly realized

• Why breed sows? It is not for reproduction!

• Even if you disagree with single service do not used cheap AI! It is false economy

We bred sows to produce pork Breeding is all about finishing

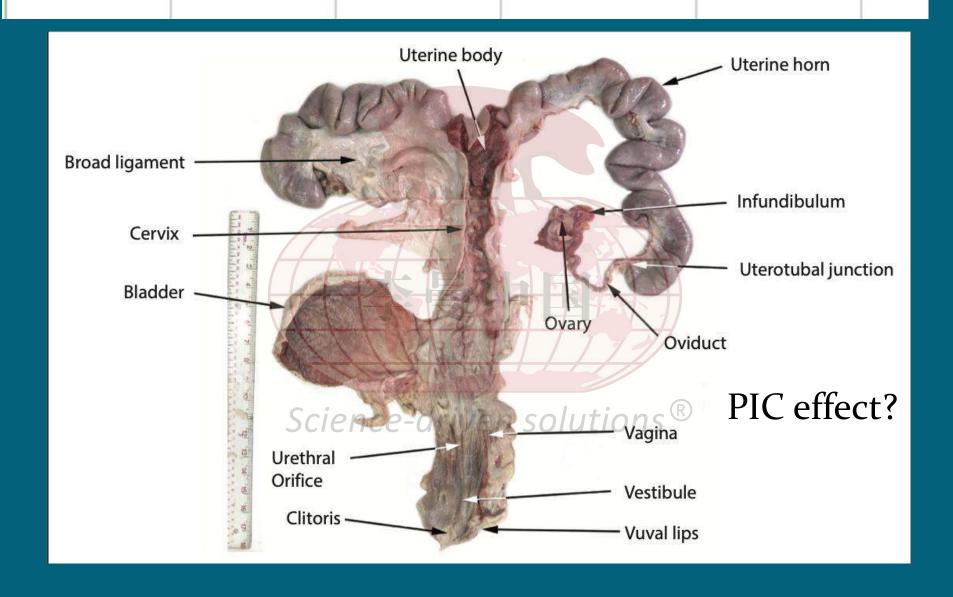
- Single service is about 0.15 reduction in FCR by using the best boars
- Enhanced carcase quality
- Enhanced breeding performance some reproductive benefits
- Enhanced biosecurity less feed trucks per day
 - Less semen movement to the farm
- Enhanced time management less breeding 3minutes per bred sow staff reduction biosecurity
- Reduced carbon footprint
- REDUCED COSTS

What it worth?

Single service benefits									
ellow boxes of	can be customised								
						26220			865
	Liveweight		kgliveweight	Herd size	1000	sows	Truck	30	tonnes per feed truck
FCR	0.05	6.5 kg saved feed per pig sold			170	tonnes per year	6 trucks per year		
	0.1	13	kg saved feed per pig	341	tonnes per year		11 trucks per year		
	0.15	19.5	19.5 kg saved feed per pig sold			tonnes per year	17 trucks per year		
	0.2	26 kg saved feed per pig sold			682	tonnes per year	23 trucks per year		3 trucks per year



Time 3 minutes 4.8 days per year



With Single serving technologies

- I can reduce 700,000 trucks on China's roads per year
- With a carbon footprint of say 3kg/kg pork –and feed being 50% of our carbon footprint
- This could reduce carbon footprint by 20 million tonnes of Carbon per Year
- About 0.1% of the country total output but a contribution!
- We have to compete against Chicken!

Personal reflection



Many thanks