# Risk Management Progress

Significant progress has been made with regards to risk management at FEI events since 2013. When assessing in three-year periods the steady decrease in all fall rates is clearly visible. It is particularly positive that a reduction in horse-falls is the major contributing factor in this progress.

Covid-19 impacted the number of starters in the period from 2019 to 2021, but the horse-fall rate of 1.0% is significantly lower than that of the 2013 to 2015 period (1.5%). To give this context, had the rate of 1.5% applied to the 2019 to 2021 period, we would have recorded 749 horse-falls. The actual figured recorded was 488, giving a theoretical saving of 261 additional horse-falls over the period.

Using the Horse Form Index (HFI) we can see a marginal and steady improvement in the quality of cross-country form for horses starting at FEI competitions There is also a corresponding increase in the cross-country clear jumping rates. This is a figure that can reflect many possibilities. A negative would be a drop in the standards of course difficulty. However, given the rise in HFI values, as well as noticeable improvements in other areas of performance (such as dressage scoring), it is most likely that the increase in clear jumping rates reflects an increase in performance across the sport.

FEI Risk Management Progress (All FEI Events)										
Period	XC_Starts	Avg HFI	XCJ Clear Rate	Total Falls	Rate	Horse Falls	Rate			
2013 to 2015	55,428	2.5	69%	2,862	5.2%	813	1.5%			
2016 to 2018	59,073	2.6	71%	2,735	4.6%	777	1.3%			
2019 to 2021	49,952	2.6	73%	2,048	4.1%	488	1.0%			
2022*	8,973	2.8	75%	342	3.8%	79	0.9%			
<b>Grand Total</b>	173,426	2.6	71%	7,987	4.6%	2157	1.2%			
*Figures valid to June 22nd 2022										

# Intro, CCI2\*-S and CCI2\*-L

This improving trend in risk statistics applies to all of the lower FEI levels of the sport. It is worth noting that these three lower levels of the international sport account for exactly 50% of all international starters. While risk is generally lower at these levels, marginal gains are sought after in all possible areas and the measures taken at the lowers levels are working effectively.

FEI Risk Management Progress (Intro & CCI2* Levels)										
Period	XC_Starts	Avg HFI	XCJ Clear Rate	Total Falls	Rate	Horse Falls	Rate			
2013 to 2015	27,359	3.0	71%	1,191	4.4%	261	1.0%			
2016 to 2018	29,541	3.0	73%	1,115	3.8%	256	0.9%			
2019 to 2021	25,357	3.0	75%	803	3.2%	144	0.6%			
2022*	4,827	3.2	78%	141	2.9%	27	0.6%			
<b>Grand Total</b>	87,084	3.0	73%	3,250	3.7%	688	0.8%			
*Figures valid to June 22nd 2022										

#### The Middle Tier – CCI3\*-S and CCI3\*L

The improvement is also extremely strong at the middle levels of the international sport in CCI3\*-S and CCI3\*-L. Had the 2013 to 2015 horse-fall rate of 1.6% applied to the 2019 to 2021 population, there would have 248 horse-falls recorded. So the actual figure of 146 is a saving of 102 horse-falls.

FEI Risk Management Progress (CCI3*-S and CCI3*-L)										
Period	XC_Starts	Avg HFI	XCJ Clear Rate	Total Falls	Rate	Horse Falls	Rate			
2013 to 2015	18,275	2.5	69%	935	5.1%	292	1.6%			
2016 to 2018	18,620	2.6	71%	849	4.6%	233	1.3%			
2019 to 2021	15,530	2.6	72%	671	4.3%	146	0.9%			
2022*	2,473	2.8	74%	97	3.9%	21	0.8%			
<b>Grand Total</b>	54,898	2.6	71%	2,552	4.6%	692	1.3%			
*Figures valid to Jui	*Figures valid to June 22nd 2022									

## Four-Star Short

At four-star short we start to see a less conclusive picture regarding horse-fall risk. The fall rate has dropped through the periods, but the horse-fall rate has been steadier.

FEI Risk Management Progress (CCI4*-S)										
Period	XC_Starts	Avg HFI	XCJ Clear Rate	Total Falls	Rate	Horse Falls	Rate			
2013 to 2015	6,548	2.3	67%	402	6.1%	134	2.0%			
2016 to 2018	7,515	2.4	69%	451	6.0%	160	2.1%			
2019 to 2021	6,494	2.3	70%	347	5.3%	122	1.9%			
2022*	1,204	2.5	72%	58	4.8%	12	1.0%			
<b>Grand Total</b>	21,761	2.4	69%	1,258	5.8%	428	2.0%			
*Figures valid to June 22nd 2022										

When we split out the last four years of CCI4\*-S data into individual years, we see that progress looks to trending in the right direction.

FEI Risk Management Progress (CCI4*-S)										
Period	XC_Starts	Avg HFI	XCJ Clear Rate	Total Falls	Rate	Horse Falls	Rate			
2019	2,771	2.3	67%	169	6.1%	70	2.5%			
2020	1,321	2.3	75%	54	4.1%	20	1.5%			
2021	2,402	2.4	70%	124	5.2%	32	1.3%			
2022*	1,204	2.5	72%	58	4.8%	12	1.0%			
<b>Grand Total</b>	7,698	2.3	70%	405	5.3%	134	1.7%			
*Figures valid to June 22nd 2022										

### Four-Star Long

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FEI Risk Management Progress (CCI4*-L)											
Period XC_Starts Avg HFI XCJ Clear Rate Total Falls Rate Horse Falls											
2013 to 2015	2,213	1.8	59%	206	9.3%	71	3.2%				
2016 to 2018	2,316	1.7	60%	196	8.5%	72	3.1%				
2019 to 2021	1,991	1.8	61%	163	8.2%	47	2.4%				
2022*	311	1.9	66%	25	8.0%	8	2.6%				
<b>Grand Total</b>	Grand Total 6,831 1.8			590	8.6%	198	2.9%				
*Figures valid to June 22nd 2022											

#### Five-Star

The one area of the sport which is lacking a clear progressive trend is five-star. Both 2021 (7.9%) and 2022 to date (7.0%) are the two highest annual horse-fall rates on record at the top level.

FEI Risk Management Progress (CCI5*-L)										
Period	XC_Starts	Avg HFI	XCJ Clear Rate Total Fa		Total Falls Rate		Rate			
2013 to 2015	1,033	1.4	56%	128	12.4%	55	5.3%			
2016 to 2018	1,000	1.4	51%	118	11.8%	56	5.6%			
2019 to 2021	520	1.4	56%	60	11.5%	28	5.4%			
2022*	158	1.5	61%	21	13.3%	11	7.0%			
<b>Grand Total</b>	2,711	1.4	54%	327	12.1%	150	5.5%			
*Figures valid to June 22nd 2022										

With this level of the sport presenting a much lower sample size, the annual horse-fall figures for 2021 are not statistically significant. However, if the figures seen in 2022 to date were to continue or even increase, then this area of the sport would become a greater concern.

	CCI5*-L Annual Trends 2013 to June 2022												
Year	XC_Starts	Avg HFI	XCJ Clear Rate	Sig	Total Falls	Rate	Sig	Horse Falls	Rate	Sig			
2013	330	1.4	62%	<b>2.6</b>	34	10.3%	-1.0	15	4.5%	-0.8			
2014	375	1.4	46%	<b>-3.2</b>	60	16.0%	2.3	23	6.1%	0.5			
2015	328	1.4	60%	<b>2.2</b>	34	10.4%	-0.9	17	5.2%	-0.3			
2016	357	1.4	52%	-0.9	37	10.4%	-1.0	20	5.6%	0.1			
2017	327	1.4	50%	-1.7	45	13.8%	0.9	21	6.4%	0.7			
2018	316	1.4	52%	-1.0	36	11.4%	-0.4	15	4.7%	-0.6			
2019	272	1.4	53%	<b>⇒</b> -0.6	33	12.1%	0.0	12	4.4%	-0.8			
2020	45	1.4	71%	<b>2.2</b>	0	0.0%	-2.5	0	0.0%	-1.6			
2021	203	1.4	58%	<b>)</b> 1.1	27	13.3%	0.5	16	7.9%	1.5			
2022	158	1.5	61%	<b>3.6</b>	21	13.3%	0.5	11	7.0%	0.8			
Grand Total	2711	1.4	54%		327	12.1%		150	5.5%				