

USE OF THE WOOL BUYERS' FAULT REPORTS TO MONITOR THE INCIDENCE OF CONTAMINATION AND FAULTS IN THE SOUTH AFRICAN WOOL CLIP

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Background: South African wool is an internationally sought-after commodity. The wool price is determined by a number of factors, including contamination and classing faults. Whilst the South African clip is generally well-classed, contamination and classing mistakes is not only detrimental to the price of wool, but also conveys a negative image of the clip.

Table 1: Fault reports per category for the 2010/11 season to the 2020/21 season

Fault	Season										
	2010 11	2011 12	2012 13	2013 14	2014 15	2015 16	2016 17	2017 18	2018 19	2019 20	2020 21
1. Mixed lengths (>20mm variation in the line)	205	624	929	993	811	311	289	217	528	410	171
2. Mixed quality (poorly skirted)	19	18	69	67	48	0	0	0	0	0	0
3. Sweaty pieces in main line	0	1	0	0	0	0	0	0	0	0	0
4. Piece and belly lines urine/dung stained	0	15	1	4	1	1	0	0	0	0	2
5. Contamination: Baling twine, plastic	49	200	859	1287	1228	830	996	1542	281	270	426
6. Black hair	12	2	24	44	77	98	155	58	22	3	2
7. Kemp/medullated fibre	6	2	2	26	20	65	155	42	16	0	3
8. Contamination: Paint, marking ink	368	222	297	179	144	59	69	32	11	3	1
9. Contamination: Cigarette butts, etc.	1	2	0	1	0	0	0	0	0	0	0
10. Contamination: Metal wire, clips, etc.	4	1	2	9	0	3	1	7	0	0	0
11. Contamination: Other	303	16	27	48	10	21	31	50	19	10	4
Total faults	960	1103	1834	2658	2309	1388	1696	1948	877	696	609
Number of lots with faults	937	1096	1823	2636	2284	1317	1535	1891	859	696	607

Results: The main faults reported were mixed lengths, and polypropylene and plastic contamination. Paint and marking ink, Kemp fibre contamination, and black hair were reported in significant numbers to the 2018/19 season. Over the last two years the number of faults declined to a single digit number. There was a marked decline in Baling twine and plastic contamination (1542 in the 2017/18 season to 270 in the 2019/20 season). Unfortunately, this type of contamination increased again to 426 (about 58% increase) in the 2020/21 season. Mixed lengths significantly decreased from 410 to 171. The total number of clip faults has drastically declined in comparison to previous years (1948 in the 2017/18 season to 609 in the 2020/21 season). One can only speculate that the drive for certification of producers (RWS, ZQ, SCWS and Abelusi) may have played a role in the decline through making producers aware of contamination issues.

Mixed lengths:

This fault increased over the seasons from 2010/11 to 2013/14 (205 to 929 incidences). Thereafter it steadily began to decrease over the next six seasons (811 to 217 incidences). A sudden increase occurred in the incidence of mixed lengths to 528 in the 2018/19 season. Fortunately, it declined during the last two seasons (2019/20 and 2020/21) to 410 and 171 respectively. The reasons for this

aren't clear but the main types where mixed lengths usually occur is in the lamb's wool lines. (See fig 1)

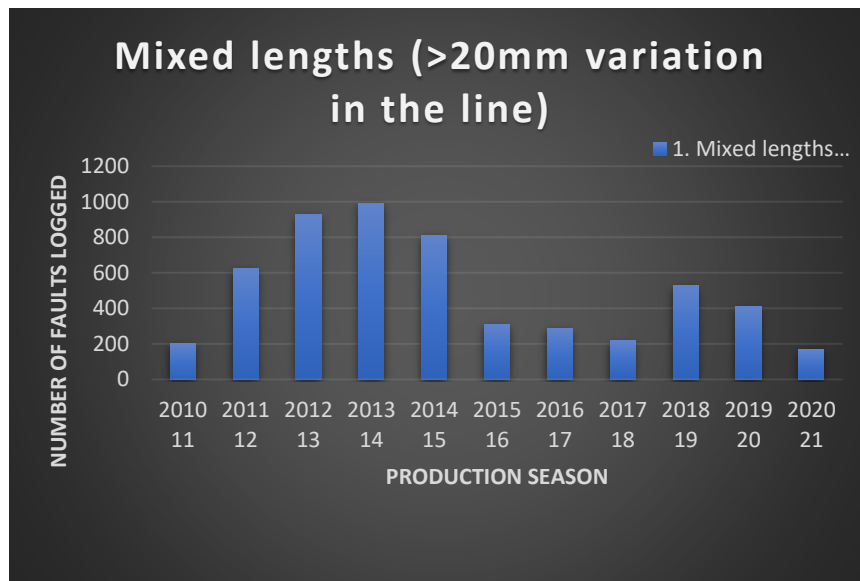


Fig 1: Incidence of mixed lengths over the 2010/11 to 2020/21 seasons

Polypropylene, baling twine and plastic

The incidence of polypropylene, baling twine, and plastic contamination increased dramatically from the 2010/11 season to the 2013/14 season (49 to 1297 incidences). Following a fine introduced by the industry for this type of contamination, incidence decreased to 1228 in the 2014/15 season and to 811 in the 2015/16 season. Unfortunately, in the 2016/17 and 2017/18 seasons this type of contamination increased again to 996 in the 2016/17 season and to an all-time high of 1542 in the 2017/18 season. This dropped significantly during the 2018/19 and 2019/20 season (281 and 270 respectively). Unfortunately, the past season saw an increase of 58% in this type of contamination (270 to 426). Producers must be very careful with a high incidence rate of these contaminants, as it tarnishes the appeal of the SA Clip. The western part of the production area, due to the ongoing drought, received a large quantity of bales for drought relief purposes. This may have played a role in the significant increase in contamination.

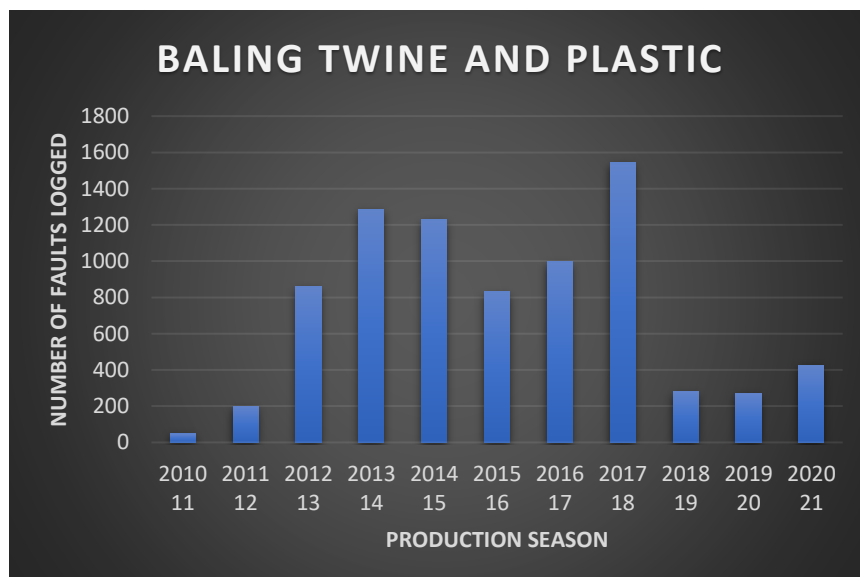


Fig 2: Incidence of Bailing twine, Polypropylene, and plastic contamination over the 2010/11 to 2020/21 seasons

Paint and marking ink

Paint and marking ink contamination consistently decreased over this period (368 in 2010/11 to 1 incidence in 2020/21).

Producers reacted well to the efforts of brokers and extension personnel to curb this type of contamination.

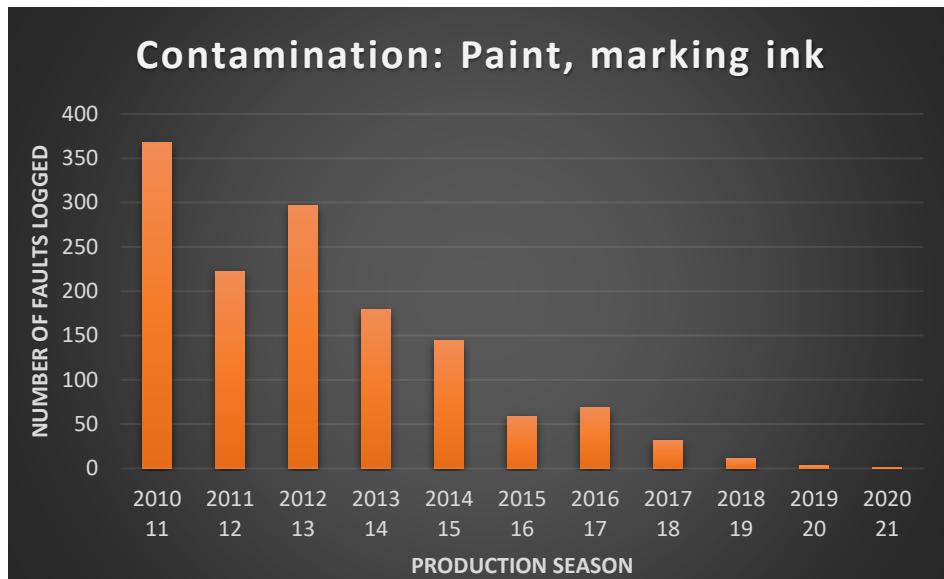


Fig 3: Incidence of paint and marking ink contamination over the 2010/11 to 2018/19 seasons

Kemp/medullated fibres

Kemp steadily increased over this period until the 2016/17 season (6 in 2010/11 to a high of 155 incidences in the 2016/17 season). The incidences then dramatically decreased over the next 4 seasons, with 3 incidences reported for the 2020/21 season.

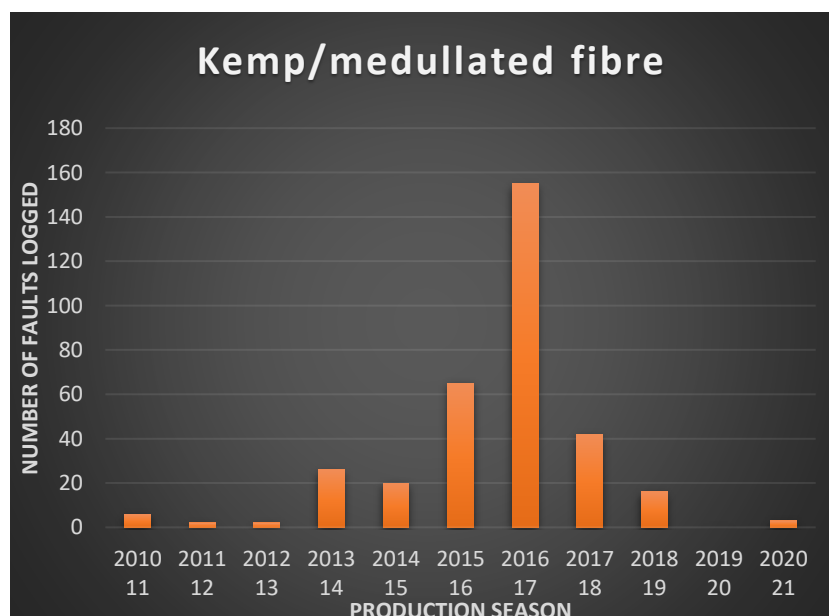


Fig 4: Incidence of Kemp and medullated fibre contamination faults over the 2010/11 to 2020/21 seasons

Black hair:

Black hair increased over the period from 12 in the 2010/11 season to 155 incidences in the 2016/17 season. Fortunately, this trend turned around and a dramatic decrease in black hair contamination (2 incidences) in the 2020/21 season occurred. The incidence was brought down to the levels experienced in the 2011/12 season.

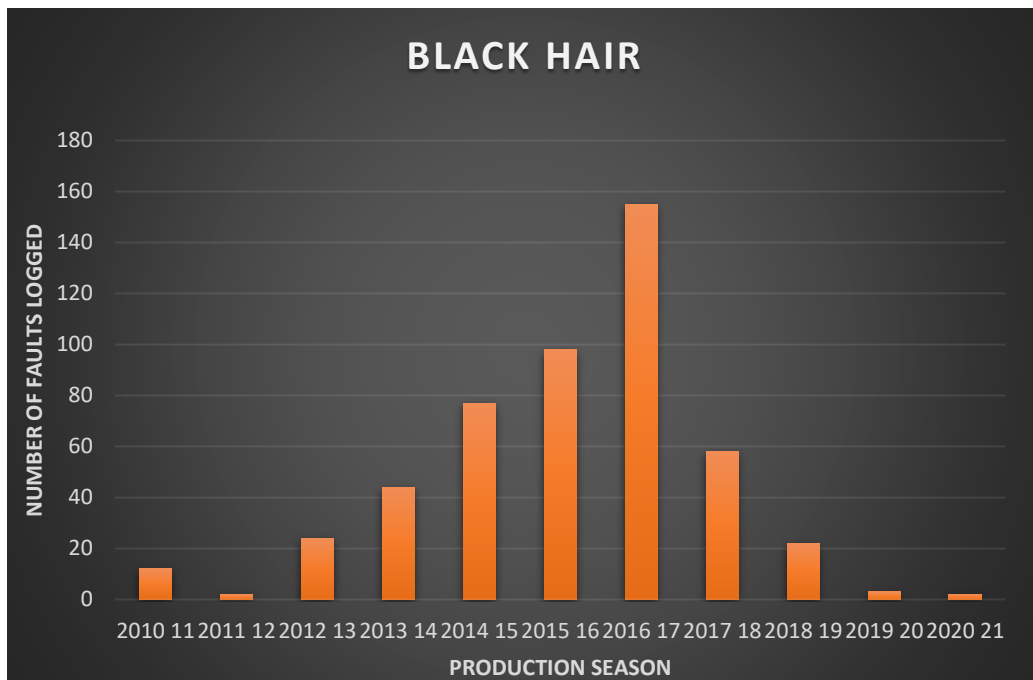


Fig 5: Incidence of black hair contamination over the 2010/11 to 2017/18 seasons

Conclusion

The Baling twine, polypropylene and plastic contamination rapidly decreased the 2018/19 and 2019/20 seasons but unfortunately it increased again in the 2020/21 season. It is promising to note that the black hair and Kemp contamination significantly decreased, and the level of contamination is currently very low. The increase in mixed lengths is cause for concern and needs to be analysed further. The constant decrease in paint and marking ink resulted in the lowest level of contamination (1 incidence) over the whole review period.