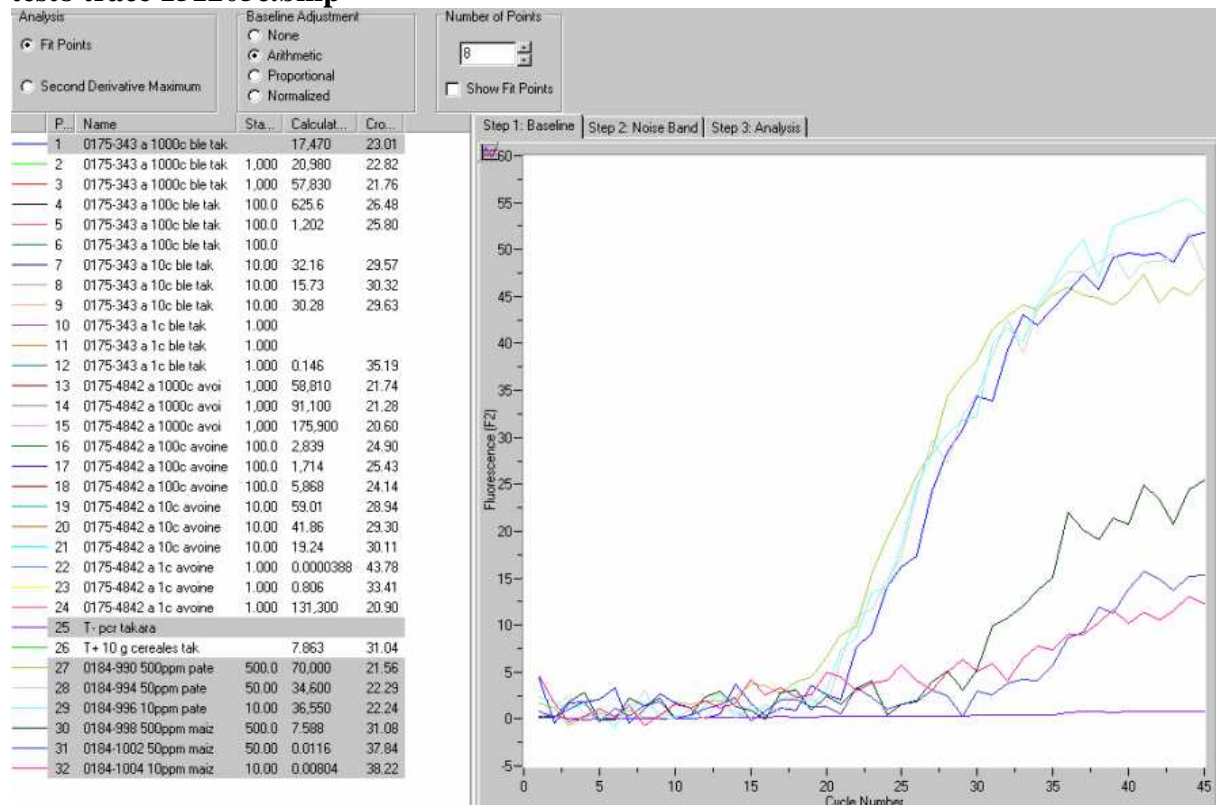


Testing of matrix effects : optimisation of the quantification of cereals on the LightCycler instrument : first experiments on spiked food samples :

- Testing of pasta samples labelled “without gluten” spiked with different amounts of Farro Della Garfagnana : 500mg/kg, 50mg/kg, 10mg/kg. DNA extracted from the samples has been adjusted to 10ng DNA/μL prior to amplification.
- Testing of maize starch samples spiked with different amounts of Farro Della Garfagnana : 500mg/kg, 50mg/kg, 10mg/kg. DNA extracted from the samples has been adjusted to 10ng DNA/μL prior to amplification.

test8 trace 151205c.bmp



Results :

- pasta samples : the results show that all spiked gluten free pasta samples contain as much cereal DNA as the 1000copy standard. The fluorescence signal measured do not correlate with the amount of Farro Della Garfagnana added. The signal most probably correspond to the initial contamination of the sample with cereals.
- maize starch samples : the results show that all spiked starch samples contain cereal DNA but at levels inferior to the 1000copy standard. The fluorescence signal measured appear to slightly correlate with the amount of Farro Della Garfagnana added. The faint fluorescence signal may derive from matrix effects inhibiting the emission of fluorescence.