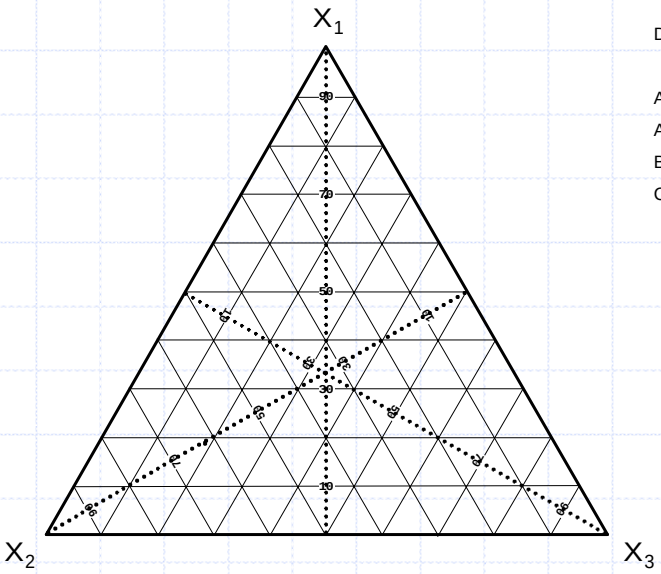
Piepel's: ABS Pipe Trace Plot

(Piepel's direction uses Pseudo values)



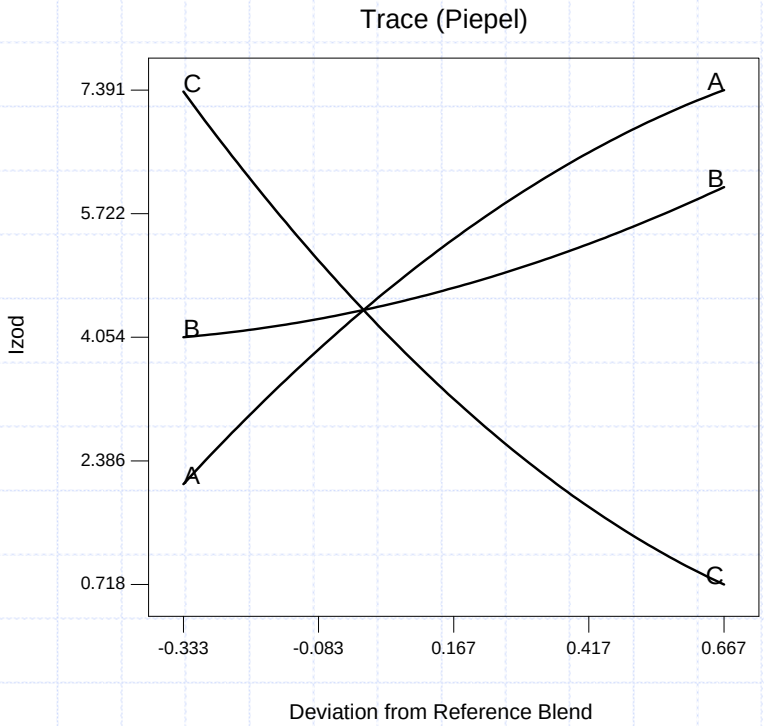
DESIGN EXPERT Plot

Actual Components:

A = graft

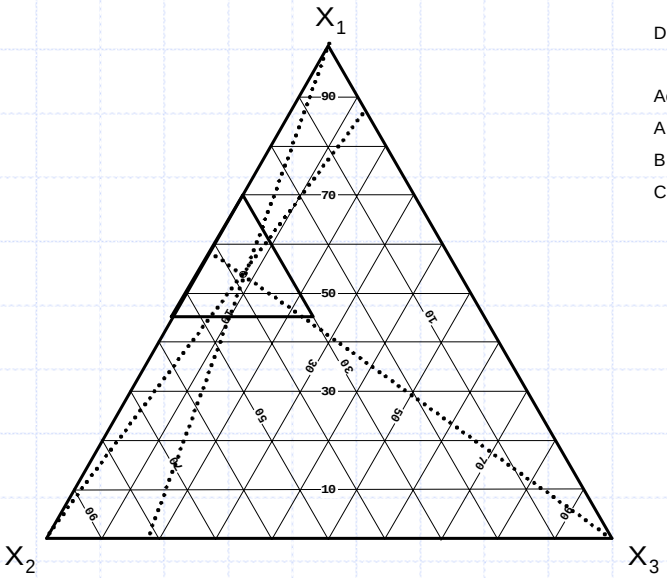
B = SAN

C = pitch



Cox's: ABS Pipe Trace Plot

(Cox's direction uses Real values)



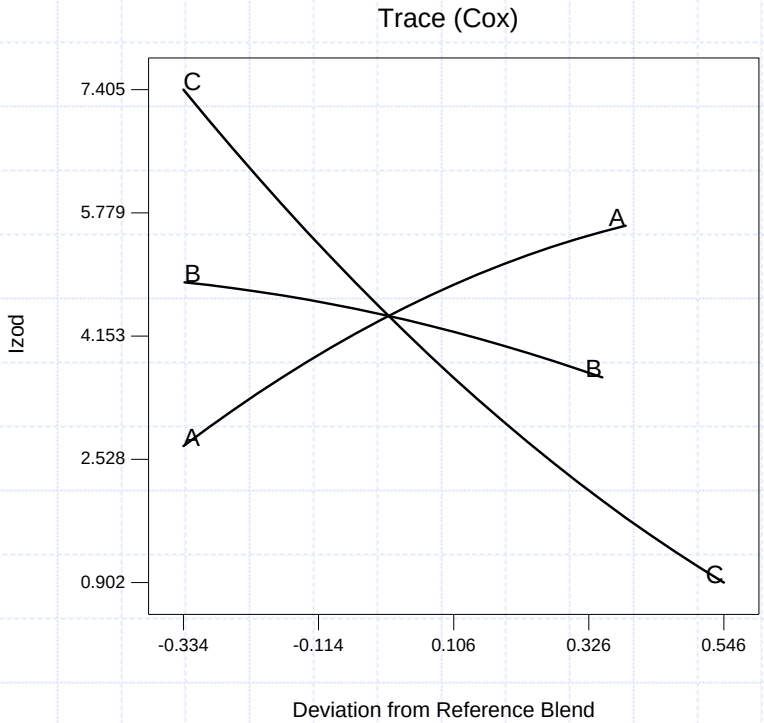
DESIGN EXPERT Plot

Actual Components:

A = graft

B = SAN

C = pitch



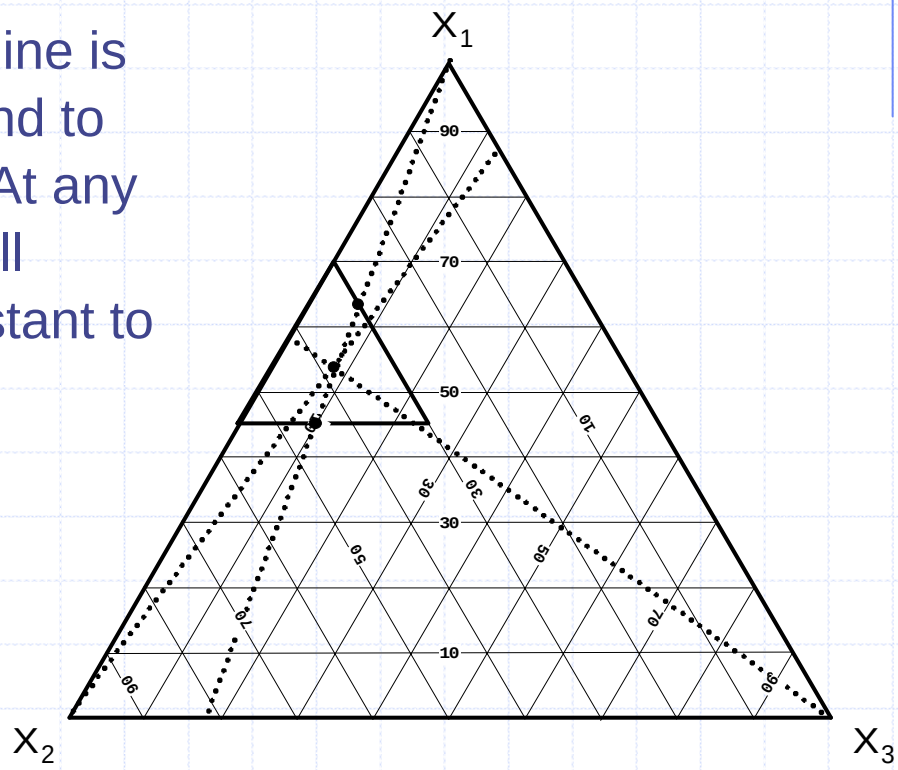
Cox's: ABS Pipe Trace Plot

(Cox's direction uses Real values)

In Cox's direction, an imaginary line is projected from the reference blend to the vertex $X_i = 1$ in real values. At any point along this line the ratio of all components (except X_i) are constant to each other.

Along the trace toward A = 1
B/C = 4.6 at every point:

	A	B	C	B/C
Base	0.4500	0.4518	0.0982	4.60
Centroid	0.5333	0.3833	0.0833	4.60
Side	0.6348	0.3000	0.0652	4.60

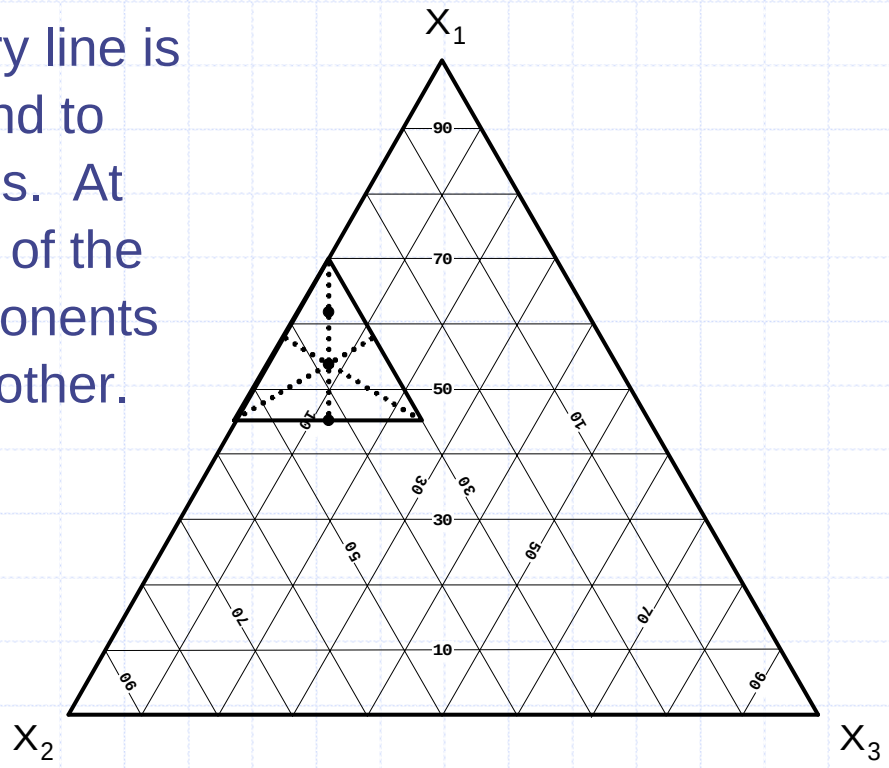


Piepel's: ABS Pipe Trace Plot

(Piepel's direction uses Pseudo values)

In Piepel's direction, an imaginary line is projected from the reference blend to the vertex $X_i = 1$ in pseudo values. At any point along this line the ratio of the changeable amounts of all components (except X_i) are constant to each other.

$$\frac{(B - L_B)/(U_B - L_B)}{(C - L_C)/(U_C - L_C)} = \text{constant}$$



Piepel's: ABS Pipe Trace Plot

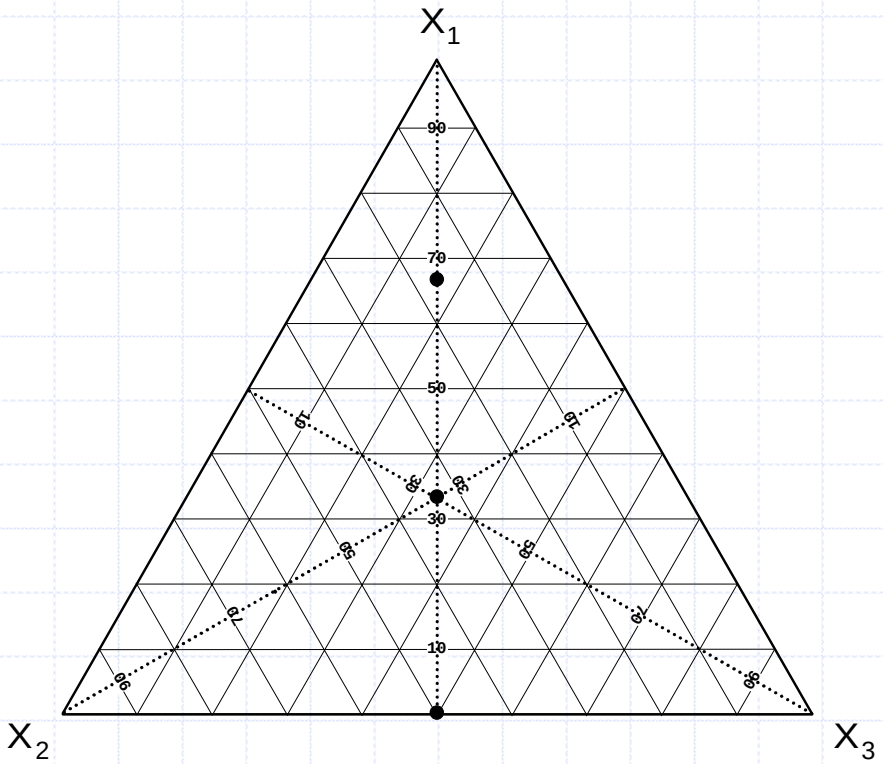
(Piepel's direction uses Pseudo values)

Along the trace toward A = 1,

$$\text{ratio} = \frac{(B - L_B) / (U_B - L_B)}{(C - L_C) / (U_C - L_C)} = 1.0$$

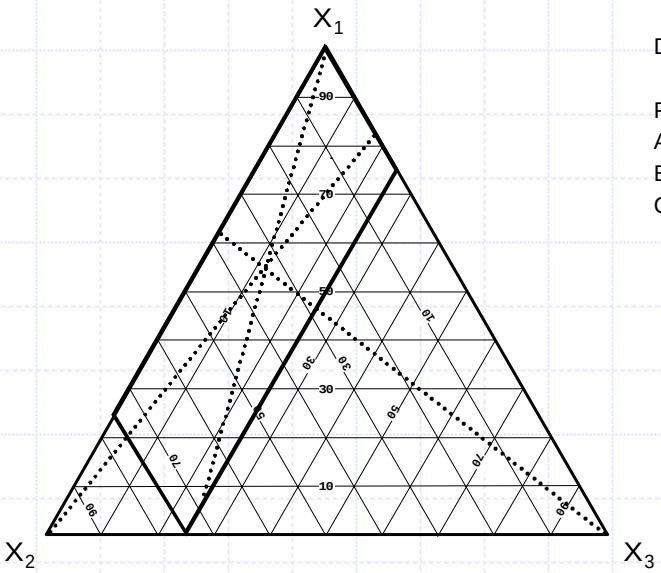
at every point:

	A	B	C	B/C
Base	0.4500	0.4250	0.1250	1.00
Centroid	0.5333	0.3833	0.0833	1.00
Side	0.6167	0.3417	0.0417	1.00



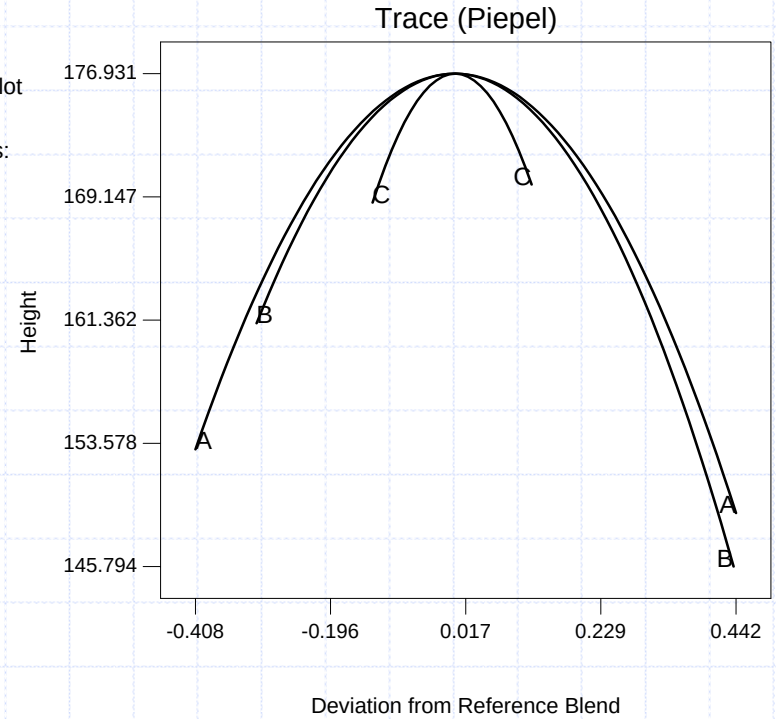
Piepel's: Shampoo Trace Plot

(Piepel's direction through optimum)



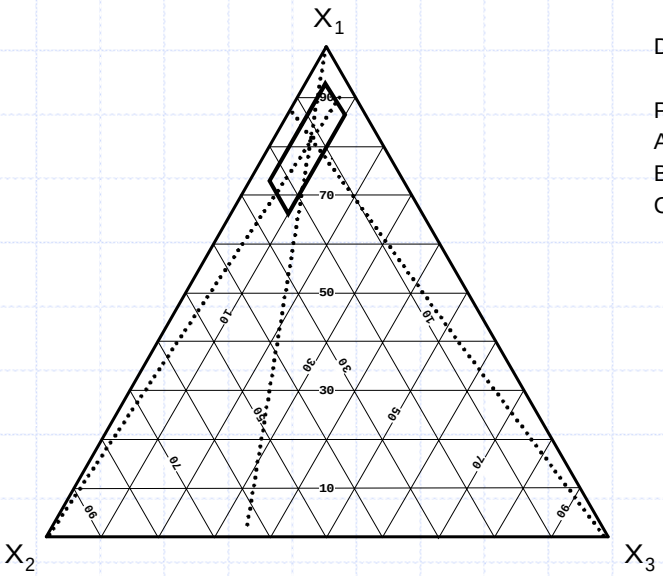
DESIGN-EXPERT Plot

Pseudo Components:
A = TEA-LS
B = Cocamide
C = Lauramide



Cox's: Shampoo Trace Plot

(Cox's direction through optimum)



DESIGN-EXPERT Plot

Pseudo Components:
A = TEA-LS
B = Cocamide
C = Lauramide