Hormone treatment of steers.

Key words: Randomized block, analysis of covariance.

Description

In an experiment with steers the influence of 4 hormone treatments (1,2,3,4) on the weight of kidney fat was examined. A total of 16 steers in 4 blocks were used distributed with 4 on each hormone treatment. The results can be seen in the table below where for each steer the weight of the animal before the hormone treatment (in kg) and the weight Y of kidney fat (in gram) a suitable time period after the hormone treatment is given. The weight of the animal before the hormone treatment is recorded as a covariate with the aim of reducing the random variation as described above.

| | Hormone treatment | | | | | | | |
| | 1 | | 2 | | 3 | | 4 | |
	Weight	Y	Weight	Y	Weight	Y	Weight	Y
Block 1	560	1330	440	1280	530	1290	690	1340
Block 2	470	1320	440	1270	510	1300	420	1250
Block 3	410	1270	360	1270	380	1240	430	1260
Block 4	500	1320	460	1280	500	1290	540	1310

Number of observations: 16

Variable	Description
block	Numbered 1-4
treat	Numbered 1-4
weight	Initial weight (kg)
Y	Weight of kidney fat (gram)

Source

Mead and Curnow, 1983)[section 8.8].

Analysis

Randomized block, analysis of covariance.