

## Possibility of using the selected cow conformation indices for predicting the course of parturition and reproductive parameters

### Summary

The experiment was carried out on 1120 Polish HF cows, coming from one of the experimental stations of the National Institute of Animal Production (IZ) in Cracow. About 15 days before parturition, 8 zoometrical measurements were conducted and on the ground of the obtained parameters, 5 conformation indices were determined. The course of parturition was specified and 4 reproduction parameters were calculated. Increasing IPZ (rump conformation index) values had a dual effect on reproduction in the herd of dairy cows, with both positive (decreased insemination index and improved conception rate) ( $P < 0.01$ ) and negative consequences (lengthening of days open and calving interval). The ischial curvature index had an inverse effect on reproductive parameters. Its increase had a highly significant ( $b = -2.51$ ) and significant ( $b = -2.54$ ) effects on shortening the length of interpregnancy and intercalving period. The cardia height index improved reproduction by reducing the number of semen doses per conception, but adversely affected reproductive parameters by reducing conception rate by 0.68 % ( $P < 0.05$ ) and by increasing interpregnancy ( $r = -0.17$ ;  $P < 0.05$ ) and intercalving period. All the analyzed conformation indices has a significant or highly significant effect on the normal course of calving. Reproductive system diseases such as retained placenta were not significantly affected by conformation indices. The possibility of decreasing or increasing predisposition to retained placenta fell within a narrow range of 0.1-0.3 %.