With reference to sampling in the audit the writer establishes a certain parallel in the development since 1933 of the professional conceptions in the Netherlands and in the U.S.A.

The discussion of the problem has been split up in three parts.

1. Permissibility in principle of sampling in the audit in accordance with the present professional conceptions
2. Character and technique of „mathematical” (a select) sampling
3. Inquiry into the possible significance of „mathematical” sampling for the audit.

Ad (1) Permissibility in principle of sampling in accordance with the present professional conceptions

The writer enters into detail on the significance of the internal control within the scope of the conception „complete audit” developed by Prof. Limperg and the development of the auditing theory since 1926.

He comes to the conclusion that uniformity of opinion has now been attained on sampling in the Netherlands: within the scope of a complete audit it is the duty of the auditor to ascertain that deviations to such an extent as to essentially influence the picture presented by the figures are non-existent (certainty judgment) and on the other hand to acquire the firm conviction that the system and the functioning of the internal control during the period under observation have been of such a nature that even deviations of relatively small importance would have been noticed (probability judgment).

Some kind of sampling can as far as the probability judgment is concerned take an acceptable place in such a complete audit.

The conceptions expressed in the American literature do not show essential differences with the Netherlands professional conceptions.

Ad (2) Character and technique of „mathematical” (a select) sampling

In this part some principles of the statistical calculation of probabilities are discussed. The so called sequential sampling, the likelihood-ratio-method, the tables for normal and tightened inspection, the control of X- and R-charts, the random-selection, the stratification-technique and the difference between the „decision-making” and „estimating” purposes which with the various sampling methods may be had in view. The writer states that though sequential sampling based on the likelihood-ratio-method is strongly propagated in the American literature, only a thorough combined investigation by auditors and statisticians may determine which method(s) may be considered most effective for the auditor.

Ad (3) Inquiry into the possible significance of „mathematical” sampling for the audit

After first discussing the character, technique and merits of unscientific sampling and judgment sampling, the nature of the sampling, used in the audit is gone into. It is concluded that conventional sampling is a combination of unscientific and judgment sampling subsequently the possible
significance of mathematical sampling is analysed. The auditor is said (also in the U.S.A.) to have the feeling that the personal judgment of the auditor, which is rightly considered to be of vital importance threatens to get lost when mathematical sampling is applied. The writer talks about the relation between sampling, and the auditing theory and he comes to the conclusion that it is only the auditor and not the statistician who is to decide whether the technique of sampling will in a certain case result in the judgment required. The writer deals with the statistical requirement of homogeneity of the mass and he points out that homogeneity is not a conception with a fixed meaning but that basical and proportional aspects of the mass, taking into account the object of the inquiry, play a part. The duties of the auditor are for this purpose distinguished in:

- the systematic choice of the relatively important moments
- the critical choice of the symptomatic moments
- the examination of what is left.

From the statements the conclusion is drawn that:

1. According to the present professional views sampling can take a justifiable place in the examination of data for which a probability judgment suffices. Conventional sampling however is not thorough enough and will have to give way to "mathematical" sampling.

2. Application of "mathematical" sampling in investigating a great number of data will in most cases result in a higher degree of certainty than the complete observation.

3. Also for the examination of data on which a certainty judgment must be obtained, sampling, organically combined with the other auditing means, is an effective means of auditing.

4. A thorough combined research of auditors and statisticians is required in order to arrive at a better understanding.