Fig. 2. Graph showing an example of data relating local lesion number to the dilution of inoculum, for CMV inoculated onto cowpea. Also included are the calculated lesion numbers for undiluted samples, the normalized lesion numbers, and the dilution end points. The dilution end points and the undiluted lesion numbers are calculated as the antilog of the intercept on the *x*- and *y*-axis, respectively.

4. Notes

1. The experimental design is of utmost importance to the success of an experiment of this kind. The most important factor to take into account is the variability among the plants and leaves inoculated. Leaves of different ages on the same plant do not always react in the same way, and leaves of similar sizes and ages from different plants may not react in the same way. In general, the leaves selected for inoculation should be of similar age and size, and, in most cases, the use of leaves at the same position and on opposite sides of the main stem gives much less variation. If experiments are carried out in this way, six to eight replicates for each sample should give sufficient accuracy. The design of the experiment depends, then, largely on the number of samples to be compared and the type of the host plant.

   The simplest example is one in which only two samples are to be compared, using a host that has leaves opposite to each other, such as cowpea (*Vigna*