Let $X$ and $Y$ denote the diameters of corks from the first and second machines, respectively. According to the assumption,

$$X \sim N(3, 0.1^2), \ Y \sim N(3.04, 0.02^2).$$

We have

$$P(2.9 < X < 3.1) = \Phi\left(\frac{3.1 - 3}{0.1}\right) - \Phi\left(\frac{2.9 - 3}{0.1}\right) \approx 0.5398 - 0.4602 = 0.0796,$$

$$P(2.9 < Y < 3.1) = \Phi\left(\frac{3.1 - 3.04}{0.02}\right) - \Phi\left(\frac{2.9 - 3.04}{0.02}\right) \approx 0.9987.$$

It indicates that $Y$ is more likely to be within the range, so the second machine is more likely to produce an acceptable cork.