For a fixed prime $p$, the set of $p$-adic numbers $\mathbb{Q}_p$ is contained in an algebraically closed field $\mathbb{C}_p$. For some polynomial maps on $\mathbb{C}_p$, the Julia set of the polynomial is contained in $\mathbb{Q}_p$. This talk will discuss various possibilities for the Haar measure of such a Julia set. (Received September 25, 2012)