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Mesut Şahin* (mesutsahin@gmail.com), Department of Mathematics, Çankırı Karatekin University, 18100 Çankırı, Turkey. *Extensions of toric varieties.*

We start by introducing the notion of extension of a toric variety and illustrate how it is useful for extending some results and for verifying some conjectures appeared in literature. Namely, it gives rise to infinitely many toric varieties with a special property, such as being set theoretic complete intersection or arithmetically Cohen-Macaulay (Gorenstein) and having a Cohen-Macaulay tangent cone or a local ring with non-decreasing Hilbert function, from just one single example with the same property. (Received September 04, 2012)