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Milena Hering* (mhering@umich.edu), Department of Mathematics, 530 Church Street, Ann Arbor, MI 48109-1043, and **Hal Schenck** and **Gregory G. Smith**. *Syzygies of toric varieties*.

A fundamental problem in algebraic geometry is to describe the equations defining an embedding of a projective variety into projective space, and the relations (syzygies) that these equations satisfy. We show that for an ample line bundle A on a projective toric variety X of dimension n , A^{n-1+p} satisfies (N_p) , i.e., the induced embedding is projectively normal, cut out by quadratic equations, and has linear first $(p - 1)$ syzygies. (Received September 21, 2005)