1015-13-221 Lee Klingler* (klingler@fau.edu), Department of Mathematical Sciences, 777 Glades Road, Boca Raton, FL 33431, and Jason Boynton (jboynto5@fau.edu), Department of Mathematical Sciences, 777 Glades Road, Boca Raton, FL 33431. The n-generator property in rings of integer-valued polynomials.
Let $D$ be an integral domain with field of fractions $Q$, let $E$ be a non-empty finite subset of $D$, and $\operatorname{set} \operatorname{Int}(E, D)=\{f \in$ $Q[X]: f(E) \subseteq D\}$, the ring of integer-valued polynomials on $D$ with respect to the subset $E$. We say that the ring $R$ has the $n$-generator property if each finitely generated ideal of $R$ can be generated by a list of $n$ elements, and we say that $R$ has the strong $n$-generator property if each finitely generated ideal of $R$ can be generated by a list of $n$ elements in which the first generator in the list is an arbitrary non-zero element of the ideal.

Chapman, Loper, and Smith showed that $\operatorname{Int}(E, D)$ has the strong 2-generator property if and only if $D$ has the 1 -generator property (that is, $D$ is a Bezout domain). Inspired by their result, we prove that, for any integer $n \geq 2$, $\operatorname{Int}(E, D)$ has the strong $(n+1)$-generator property if and only if $\operatorname{Int}(E, D)$ has the $n$-generator property if and only if $D$ has the $n$-generator property. (Received February 06, 2006)

