Quick Reference to ASA EPD and $ Indexes

Expected Progeny Differences (EPD): EPD are the most accurate and effective tool available for comparing genetic levels. In using EPD, the difference between two sires' EPD represents the unit difference expected in the performance of their progeny. For example, if sires A and B have EPD of +10 and –5, a 15-unit difference would be expected in their progeny (moving from -5 to +10 yields 15 units). Key to using EPD is knowing what units they are expressed in. For example, if the above case referred to weaning weight EPD, A would be expected to sire 15-*pounds* more *weaning weight* than B. If calving ease were the trait, A would be expected to sire 15-*percent* more *unassisted births* in first-calf heifers; in other words, if B sired 30 assists in a group of 100 heifers, we'd expect A to require 15 assists. A percentile-ranking chart is required to determine where a bull's EPD rank him relative to other bulls in the breed. For percentile rankings or more detailed information about EPD and $ indexes visit www.simmental.org. Listed below are the units ASA EPD are expressed in:

All-Purpose Index (API): Dollars per cow exposed under an all-purpose-sire scenario. (See below for more details.)
Back Fat (BF): Inches of backfat.
Birth Weight (BW): Pounds of birth weight.
Calving Ease (CE): Percent of unassisted births when used on heifers.
Carcass Weight (CW): Pounds of carcass weight.
Maternal Calving Ease (MCE): Percent of unassisted births in first-calving daughters.
Milk (MLK): Pounds of weaning weight due to milk.
Marbling (MRB): Marbling score.
Maternal Weaning Weight (MWW): Pounds of weaning weight due to milk and growth.
Ribeye Area (REA): Square inches of ribeye.
Warner-Bratzler Shear Force (WBSF): Pounds of force required to shear a steak.
Stayability (STAY): Percent of daughters remaining in the cowherd at 6 years of age.
Terminal Index (TI): Dollars per cow exposed under a terminal-sire scenario. (See below for more details.)
Weaning Weight (WW): Pounds of weaning weight.
Yearling Weight (YW): Pounds of yearling weight.
Yield Grade (YG): Yield grade score.

$ Indexes: Though EPD allow for the comparison of genetic levels for many economically important traits, they only provide a piece of the economic puzzle. That's where $ indexes come in. Through well-conceived, rigorous mathematical computation, $ indexes blend EPD and economics to estimate an animal's overall impact on your bottom line. The same technology that led to the dramatic progress in swine, poultry and dairy genetics over the last several decades was used to develop the following $ indexes:
All-Purpose Index (API): Evaluates sires for use on the entire cow herd (bred to both Angus first-calf heifers and mature cows) with the portion of their daughters required to maintain herd size retained and the remaining heifers and steers put on feed and sold grade and yield.
Terminal Index (TI): Evaluates sire for use on mature Angus cows with all offspring put on feed and sold grade and yield.
***Using API and TI*:** First, determine which index to use; if you're keeping replacements use API, if not, TI. Then, just as with EPD, zero in on the unit difference between bulls. (As described above, index units are in dollars per cow exposed.) The difference can be used to determine how much a bull is worth compared to another. Or, put another way, how much you can pay for one bull compared to another. For example, when buying an all-purpose-type sire, you can quickly figure a bull scoring +100 for API is worth an extra $6,000 over a +50 bull if both are exposed to 30 cows over 4 years ($50 diff. x 30 hd. x 4 yr. = $6,000). A percentile-ranking chart is required to determine where a bull's index value ranks him relative to other bulls in the breed. For percentile rankings or more detailed information about EPD and $ indexes visit www.simmental.org.