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A Banach space X has the Dunford-Pettis property (*DPP*) provided that every weakly compact operator T from X to any Banach space Y is completely continuous (or Dunford-Pettis operator). It is known that X has the *DPP* if and only if every weakly null sequence in X is a Dunford-Pettis subset of X . In this paper we give equivalent characterizations of Banach spaces X such that every weakly Cauchy sequence in X is a limited subset of X . We prove that every operator $T : X \rightarrow c_0$ is completely continuous if and only if every bounded weakly precompact subset of X is a limited set. We show that in some cases, the projective and the injective tensor products of two spaces contain weakly precompact sets which are not limited. As a consequence, we obtain that for all infinite compact Hausdorff spaces K_1 and K_2 , $C(K_1) \otimes_\pi C(K_2)$ and $C(K_1) \otimes_\epsilon C(K_2)$ contain weakly precompact sets which are not limited. (Received September 03, 2011)