This work studies the effect of the carrying capacity (K) on the speed (v) of a propagation front, which connect a stable homogeneous population with the bare state. The authors consider two different modeling frameworks (reaction-diffusion equations and individual-based simulation models), and three scenarios for each one (FKPP, Allee effect, and positive density-dependent dispersal type of models). In addition, the authors also developed a microcosms experiment.

The idea is interesting. However, the authors should modify several issues before publication. Here, I present a list with some of the most relevant aspects to correct.

1.- Figure 5 presents the experimental results of "Mean number of colonized patches" versus "Generation". This Figure is not easily comparable to the theoretical results illustrated in Figure 4 (speed of the front versus carrying capacity). The authors should, at least, modified Figure 5 in order to show speed vs generation. If it is possible (maybe it is too complicated in experiments), the authors may show the experimental results of speed versus carrying capacity.

2.- Considering Equation (4), the parameter K is not only the carrying capacity (it is also related to the growth rate). Considering the Allee effect scenario, the authors should work with Equation (3), where K is the carrying capacity. These results are illustrated in Figure 4 (b and c) by dashed lines. These lines represent the formula v=(K-2*rho)*(rD/2K)^0.5, which also increases as the carrying capacity K increases. Considering this, a positive relation between speed and carrying capacity can be related to Allee effect or to positive density-dependent dispersal (K>2*rho). How do these results modify the conclusions?

3.- Why do the authors consider d^2(u^2)/dx^2 and not u*d^2(u)/dx^2 (as it is considered in Lejeune et al. 2002, Physical Review E 66, 010901) on the positive density-dependent dispersion? On the discussion about pulled/pushed propagation, the authors suggest that positive density-dependent dispersion leads to a pushed propagation. Is this conclusion related with the specific density-dependent dispersion relation considered by the authors? Is it more general?

4.- Consider other references may improve the paper.

- In addition to Turchin 1998 and Hastings et al. 2005, at the beginning of the third paragraph of the introduction, I suggest Gilad et al. 2004 (Physical Review Letters 93, 098105) and Gilad et al. 2007 (Journal of Theoretical Biology 244, 680-691).
- In addition to Turchin 1998 and Lewis & Kareiva 1993, at the first paragraph in 2.1 Strong Allee effect, I suggest Clerc et al. 2005 (Physical Review E 72, 056217).