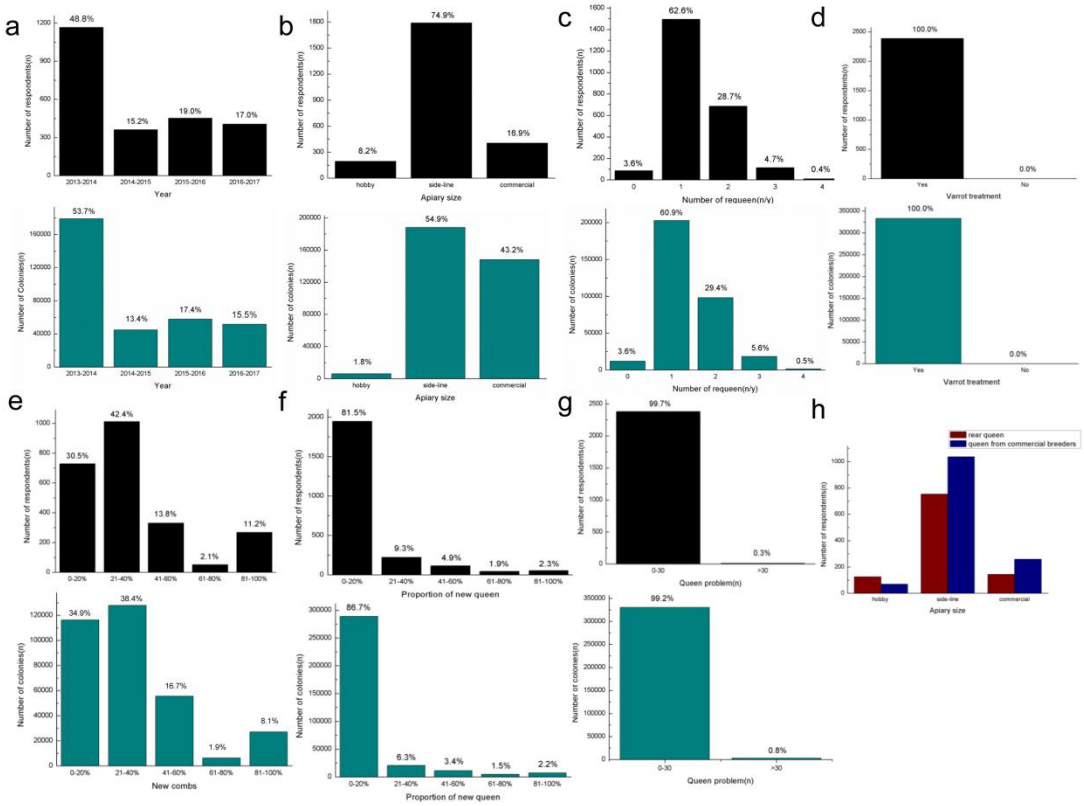


Figure S1. Data distribution of the survey. (**a**) Annual distribution in four years. (**b**) Apiary size distribution. (**c**) Distribution of respondents with different times of requeening. (**d**) Treatment against *V. destructor* distribution. (**e**) Distribution of respondents with different percents of new combs. (**f**) Distribution of respondents with different percents of new queens. (**g**) Distribution of respondents with different numbers of disabled queens. (**h**) Distribution of respondents with different origins of queens in three kind of apiaries.

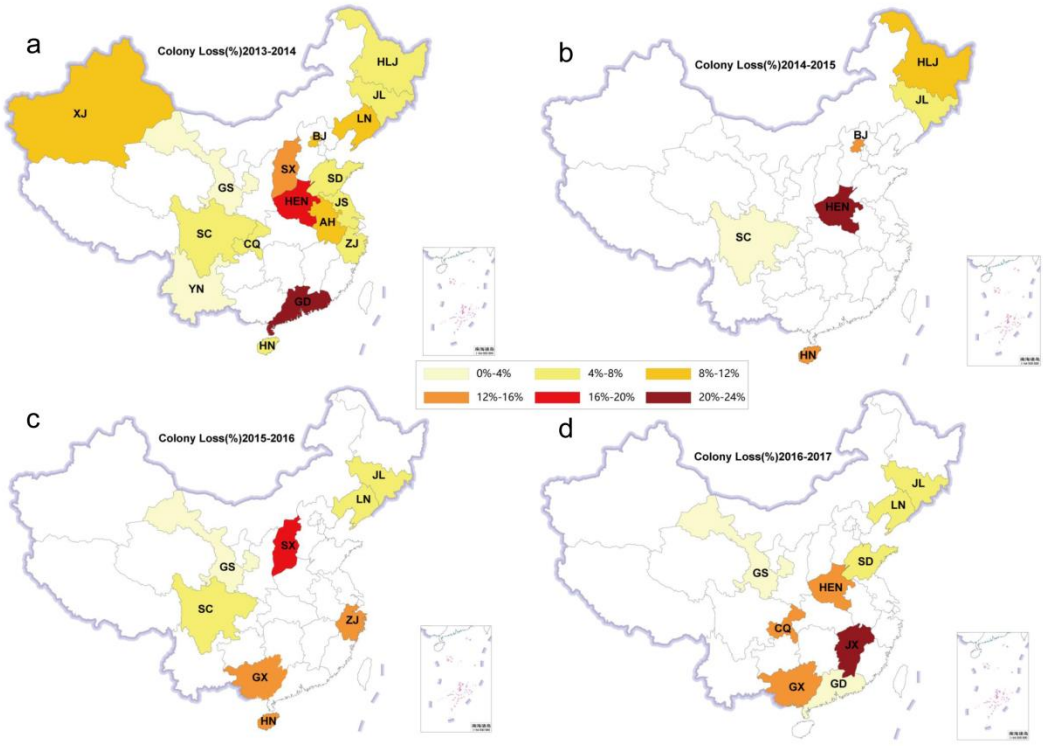


Figure S2. Annual colony winter losses (%) by the investigated provinces from 2013–2017. (**a**) Annual winter colony losses (%) by the investigated provinces in 2013–2014. (**b**) Annual winter colony losses (%) by the investigated provinces in 2014–2015. (**c**) Annual winter colony losses (%) by the investigated provinces in 2015–2016. (**d**) Annual colony winter losses (%) by the investigated provinces in 2016–2017.