Teacher self-efficacy affects student achievement, job satisfaction, and teacher retention. Although the benefits of social support have been extensively studied in medicine and psychology, limited research has been completed in education to evaluate the ways in which social support influences teacher self-efficacy. The purpose of this descriptive-relational study was to determine the influence of sources and types of support on teacher self-efficacy in novice agricultural education teachers. The target population was novice teachers of agriculture from Illinois (n = 192) and Indiana (n = 104). Teachers’ perceptions of support from three non-school sources (e.g., spouse or partner, family, friends) and six school sources (e.g., administrators, teachers at school, teachers in FFA section or district, students, parents, community) of support within three support constructs were used to predict the contribution of social support on teacher self-efficacy. Novice agricultural education teachers’ perceptions of support from school sources – predominantly students and community – explained 25.3% of the variance in teacher self-efficacy. Whereas mastery experiences are widely recognized as the primary source of self-efficacy, the results from this study imply the support (i.e., verbal or social persuasion) novice agricultural education teachers perceive from students and community are the most significant predictors of teacher self-efficacy. These findings advocate the need for novice teachers of agriculture to develop quality relationships with students and community members to increase teacher self-efficacy and potentially improve teacher retention.