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DEVELOPING AND TESTING OF A MODEL TO RAPIDLY PREDICT APPLE THINNER RESPONSE

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Over the past several years a number of experiments have been done to test the hypothesis that monitoring fruit growth is an appropriate and accurate method to predict final fruit set following thinner application. Usually it is not possible to determine if a fruit will drop until the thinning window of opportunity has passed. Between 80 and 100 spurs are tagged in total on 5 to 6 trees. All fruit are individually numbered and fruit size measured before thinner application using a digital caliper. Growth is measured at 2 to 3 day intervals for up to 12 days. Fruit are predicted to abscise if growth rate falls to 50% or less of the growth rate of the 20 fastest growing fruit being measured. Prediction can usually be made within 7 days after application, or if cool weather prevails, when at least 130 growing degree units have accumulated after thinner application.