

rFrio: an app for evaluating winter chilling for fruit trees in Southern Spain



Villalobos F.J.^{a,b} Villalobos J.^a Testi L.^a García-Tejera O.^c

^aInstituto de Agricultura Sostenible-CSIC, 14080 Córdoba, Spain

^bDep. Agronomía, Universidad de Córdoba, 14071 Córdoba, Spain

^cDep. Ingeniería Agraria, Universidad de La Laguna, 38200 Tenerife, Spain

□ Background and use of the application

Different fruit species varieties have differing *Chilling Portion* requirements. If these are not met, flowering will be poor, and in extreme cases will not occur.

The usual intervals of *CP* requirements for some common species are shown in the accompanying table.

The *rFrio* app, developed in Flutter, provides information regarding the accumulation of chilling during the Winter in some Spanish regions (*Andalucía, Comunidad Valenciana, Extremadura, Murcia*). The data covers historical data, from the *Iberia01* dataset, as well as actual (2000 to 2020) and future (2020 to 2040 and 2040 to 2060) conditions, based on projections from *U. Kassel*.

The app is intended for making decisions regarding adaptation of their crops, chiefly fruit trees and vineyard, to future chilling conditions. It is available for Android and iOS.

Crop	Min	Max
Almond	22	32
Apple	57	77
Peach	8	75
Pear	37	83
Vineyard	9	20
Cherry	30	70
Pistachio	54	65
Walnut	38	72

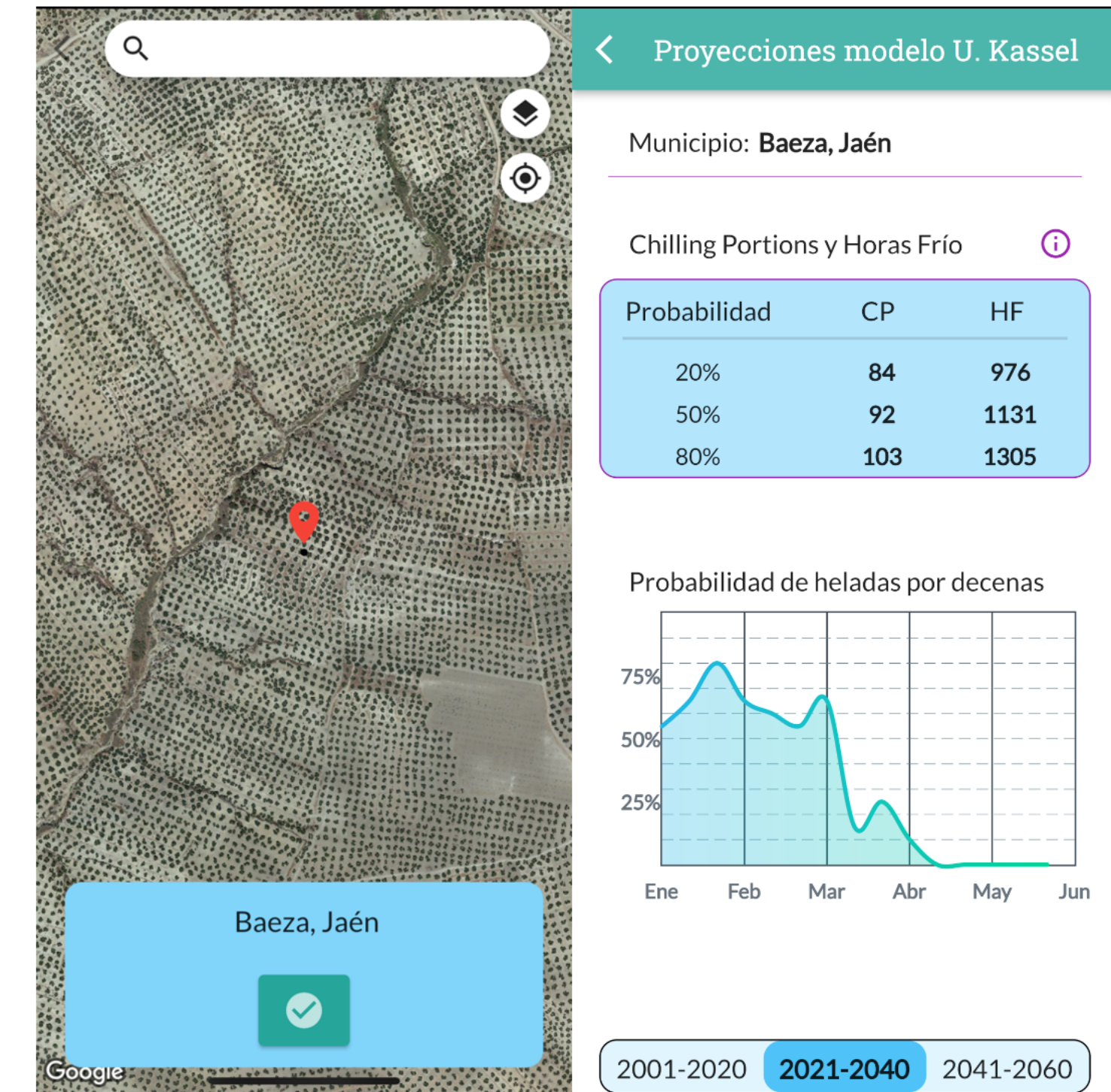
Values of *Chilling Portions* for common fruit crops



Covered regions (in red)



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Example: projected values in Baeza, Jaén

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