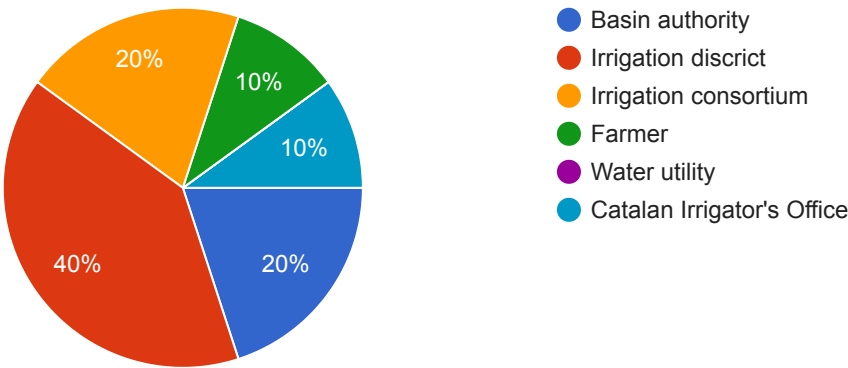


ESA Irrigation+

10 risposte

Can you indicate the type of the organization you belong to?

10 risposte



Where your organization is located?

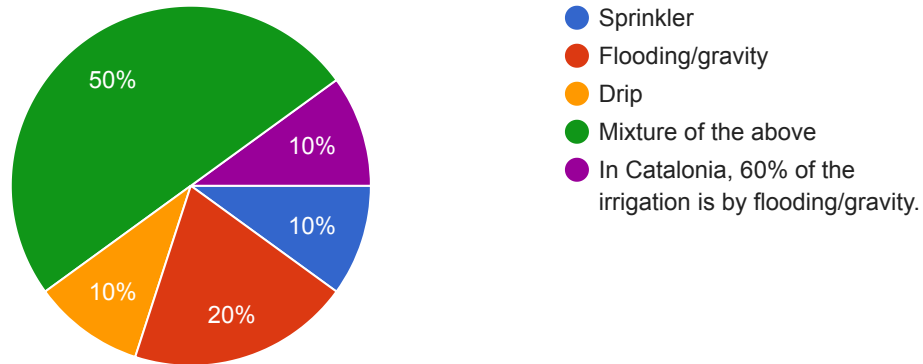
10 risposte

- Tarn
- Lleida (Pinyana)
- Cahors, Lot, France
- Sardinia
- Mollerussa, Lleida
- Zaragoza, (Spain)
- SISTEMA SEGARRA-GARRIGUES
- Bologna, Italy
- Binéfar (Huesca)



Which type of method do you use to apply irrigation?

10 risposte



Are you currently using a system for the management and monitoring of irrigation? If yes please provide a short description and list limitations of this system (if any).

10 risposte

Yes : we use tensiometer in a sample of agricultural plots.

No.

Sondes tensiométriques

Normally we use the experience. One months ago we instal sensors in the ground and an agrometeorological unit on tomato crop. We are testing it this year.

El riego es mayoritariamente por inundación (90%). LA gestión de riego está realizada por subzonas con una distribución por turnos de riego, independientemente del cultivo de las fincas. El seguimiento de los turnos de riego se realiza por parte de personal de la Comunidad de Regantes, mientras que la aplicación del riego a finca se realiza por parte de cada propietario o regante.

Full system for the whole basin based on the SAIH system (real time monitoring) . Mainly surface water. Intakes.



Could you provide an estimate of the frequency of irrigation (number of times per month) in a typical season for an irrigated crop particularly present in you area (please indicate which crop). Leave it blank if you do not know or you do not want reveal this information.

6 risposte

4

2

12

2.3

30

15

Which technique are you using to measure applied irrigation volumes in your management system?

10 risposte

On the plot, we have rain gauge, and at the end of the irrigation season, we check the total volume on water meter

None.

Compteur d'eau

Check the soil

Aforos en origen de la Red de distribución en alta (caudalímetros de ultrasonidos o aforadores Parshall) y aforos con aforadores Parshall en las tomas de riego (inicio de la red de distribución secundaria).

We measure water abstracton and supply, not in the field.

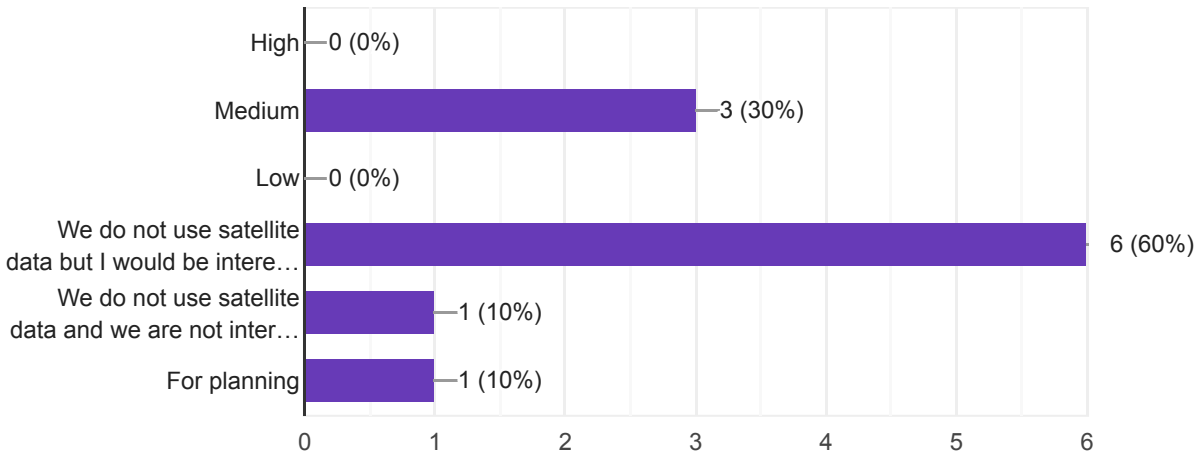
POR DIFERÈNCIA DE VOLUMENES EN LECTURAS BIANUALES

water meter when available or entered in IRRIFRAME directly by farmers



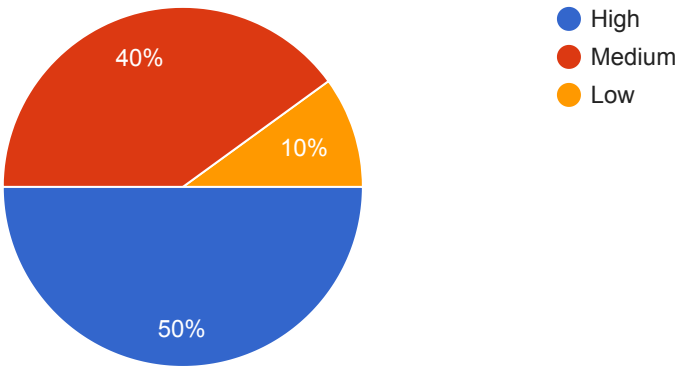
To what degree do you use satellite data for the planning/management of irrigation?

10 risposte



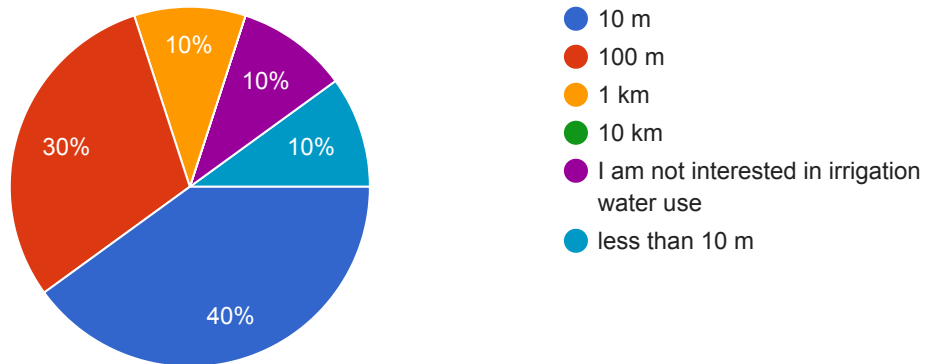
In the Irrigation+ project we will provide an estimate of irrigation water use using both satellites and models. To what degree would you be interested in using these products?

10 risposte



If irrigation water used was provided from satellites and models (or a combination of them), at which spatial resolution would you need it?

10 risposte



Can you provide a reason for the spatial resolution selected and which will be the benefit for your system? (leave it blank if you are not interested in the knowledge of irrigation water use)

8 risposte

This resolution would enable us to have a global view of the plot and to adapt our advice to its heterogeneity.

Plot size are small

En el actual sistema de riego por inundación sería suficiente con una escala a 1 km. No obstante, nuestra Comunidad de Regantes está iniciando el proceso de transformación a riego modernizado a presión con el que sería adecuado una escala menor (100 m) para poder incidir en la programación y planificación de riego por parcela.

We are interested in plot scale. About 1:5000 scale

CONOCER EL CONSUMO POR CULTIVOS

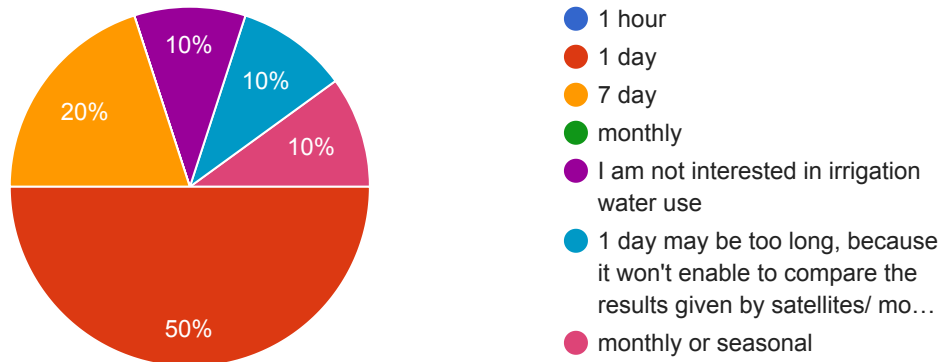
The average irrigation unit size in Emilia-Romagna is 100mx100m (1Ha)

Resoluciones de 10 m aun resultan demasiado groseras para cultivos leñosos, siendo lo mínimo imprescindible para cultivos extensivos



If irrigation water used was provided from satellites and models (or a combination of them), at which temporal resolution would you need it?

10 risposte



Can you provide a reason for the temporal resolution selected and which will be the benefit for your system? (leave it blank if you are not interested in the knowledge of irrigation water use)

7 risposte

Tomato crop is very sensitive to water stress

Con un control diario obtendríamos una estimación real de las necesidades de riego, el estress hídrico en fincas, su variabilidad real de evapotranspiración, etc. No obstante, a día de hoy las recomendaciones de riego así como la planificación de necesidades en el sector del riego se realizan con una frecuencia semanal, que podría ser un valor correcto pero no el adecuado para profundizar en la optimización de la eficiencia de riego y el ahorro de recurso.

We are not farmers, so for us we don't need short temporal resolution

UNAMEJORA EN LA GESTION Y PREDICCIÓN DE LA DEMANDA

The irrigation scheduling at plot level is daily based

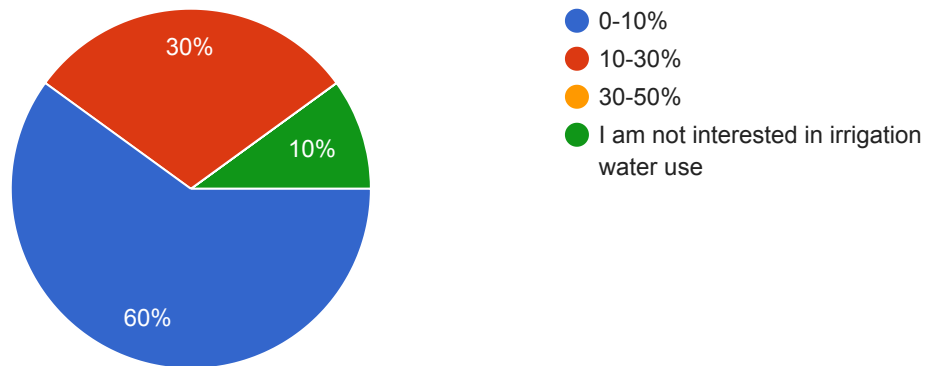
Necesario conocer datos diarios para racionalizar y ajustar el consumo del agua

Les programacions de reg setmanals són correctes, sempre és millor si és menys però si



With which accuracy would you need information about irrigation water use (i.e. accuracy on volume of irrigation per month/year)?

10 risposte



Do you monitor soil moisture in your management system? If yes can you provide some details (type: ground data, satellites, models and details of spatial and temporal resolution) about the technique used to monitor it? (leave it blank if soil moisture is not monitored or simply answer "no")

7 risposte

we use auger to determine ground data every year of the plots that we monitor, and tensiometers for soil moisture (information every 4 hours)

No.

Analyse de sols (texture et réserve utile)

We start this month with sensors in the soil connected with a meteorological unit

no

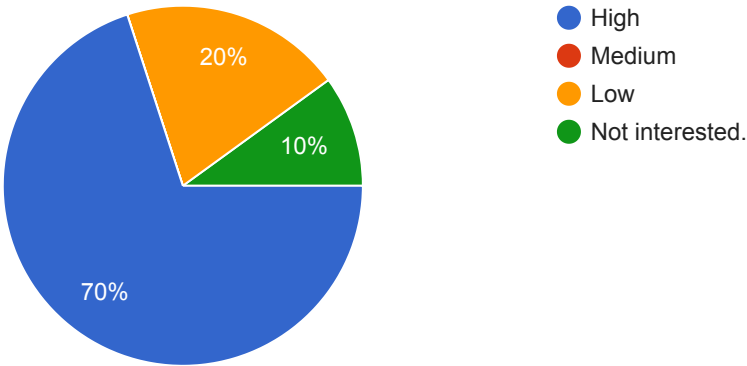
No

we monitor soil moisture indirectly with IRRIFRAME model and using soil-moisture sensors in farms, when available, with automated integration into the IRRIFRAME service



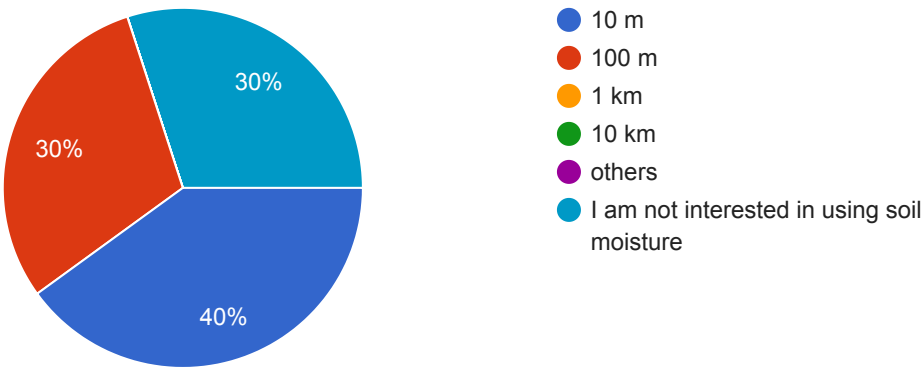
In the Irrigation+ project we will develop different soil moisture products using both satellites and models (or a combinations of them). To what degree would you be interested in using these products?

10 risposte



Which spatial resolution would you need for soil moisture products?

10 risposte



Can you provide a reason for the spatial resolution selected and which will be the benefit for your system? (leave it blank if you are not interested in the knowledge of soil moisture)

4 risposte

Similar respuesta a la anterior referente a la resolución para el agua de riego

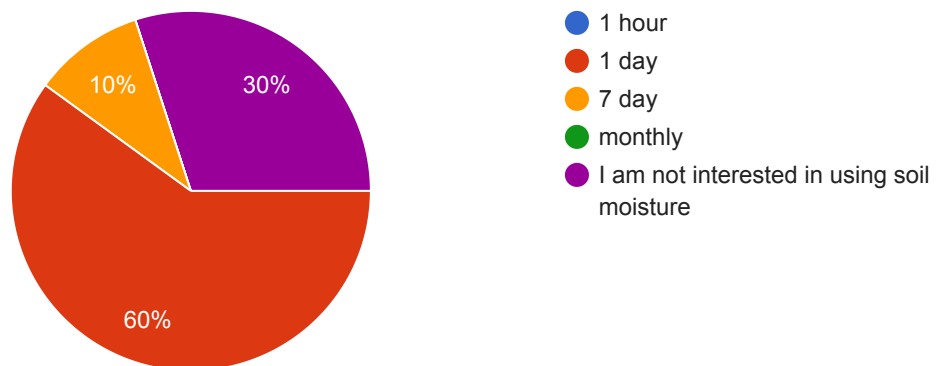
LO CONSIDERO SUFICIENTE. MEJORA DE LA GESTION DEL RIEGO

Irriframe is able to manage precise irrigation system for variable rate irrigation where resolution lower than 10 m is possible

els sòls són molt heterogenis i potser a escales majors s'hauria de fer unitats homogenies de sòl

Which temporal resolution would you need for soil moisture products?

10 risposte



Can you provide a reason for the temporal resolution selected and which will be the benefit for your system? (leave it blank if you are not interested in soil moisture)

6 risposte

1 day may be too long, because it won't enable to compare the results given by satellites/ models to the ones given by the tensiometer. A temporal resolution of 4-6h would be more practical

Tomato crop is very sensitive to water stress

Similar respuesta a la anterior referente a la resolución para el agua de riego

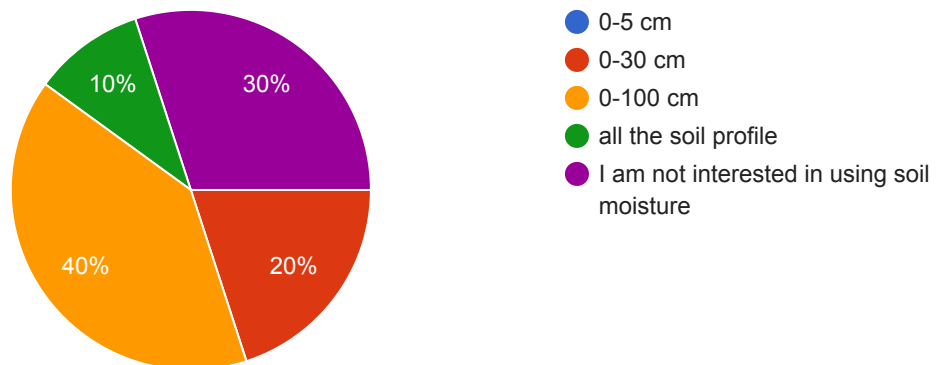
LO CONSIDERO SUFICIENTE

Irrigation scheduling is based at daily temporal step

la humitat al sòl pot variar en certes èpoques molt, però a 7 dies també seria correcte

At which depths would you need information for soil moisture ?

10 risposte



Can you provide a reason for depths selected and which will be the benefit for your system? (leave it blank if you are not interested in soil moisture)

6 risposte

This depth is well adapted for corn.

It is the root zone

El tramo 0-30 seria necesario para establecer la humedad aprovechable por las plantas y establecer valores de la capacidad de campo del territorio. La profundidad superior a 30 cm hasta 1 metro nos da información de la infiltración de agua (pérdida de agua), así como la posibilidad de conocer niveles freáticos y comportamiento de los acuíferos y establecer relaciones con el riego, los cultivos y la situación climatológica.

DE HECHO SE NECESITARIA HASTA 50 CM, LA PROFUNDIDAD ON HAY LA MAYORIA DE LAS RAICES

The root-water uptake is mainly located at depth of 0-50 cm

on hi hagi la majoria d'arrels, que és funció dels cultius, com a mínim a 30 cm



Do you monitor evapotranspiration in your management system? If yes can you provide some details (type: ground data, satellites, models and details of spatial and temporal resolution) about the technique used to monitor it? (leave it blank if soil moisture is not monitored or simply answer "no")

7 risposte

no but we use data from Meteo France (daily ETP)

No.

We use public data from the ARPAS (regional environmental agency of Sardinia). From one month onwards, we have a meteo station with this data.

no

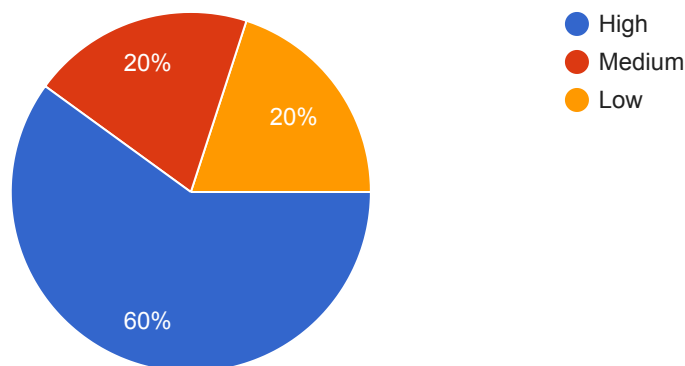
No

Reference evapotranspiration is calculated from meteo data (meteo regional service or local meteo station) while the actual evapotranspiration is calculated from IRRIFRAME model integrated with satellite data

La informació d'ETo ens l'ofereix el Servei Meteorològic de Catalunya

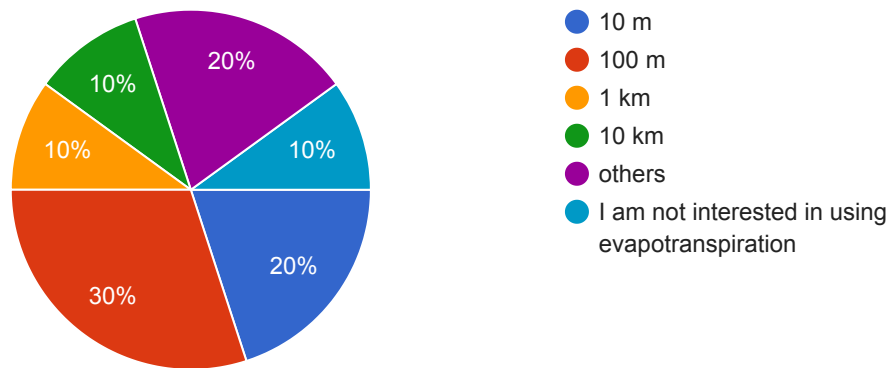
In the Irrigation+ project we will develop different evapotranspiration products using both satellites and models (or a combination of them). To what degree would you be interested in using these products?

10 risposte



Which spatial resolution would you need for evapotranspiration products?

10 risposte



Can you provide a reason for the spatial resolution selected and which will be the benefit for your system? (leave it blank if you are not interested in evapotranspiration)

8 risposte

Below this resolution, the difference between 2 points may not be accurate

Plot size are small.

Similar respuesta a la anterior referente a la resolución para el agua de riego

Just for effects on water demand. Higher evapotranspirations higher water demand in the context of climate change

LO CONSIDERO SUFICIENTE

Irriframe is able to manage precise irrigation system for variable rate irrigation where resolution lower than 10 m is possible

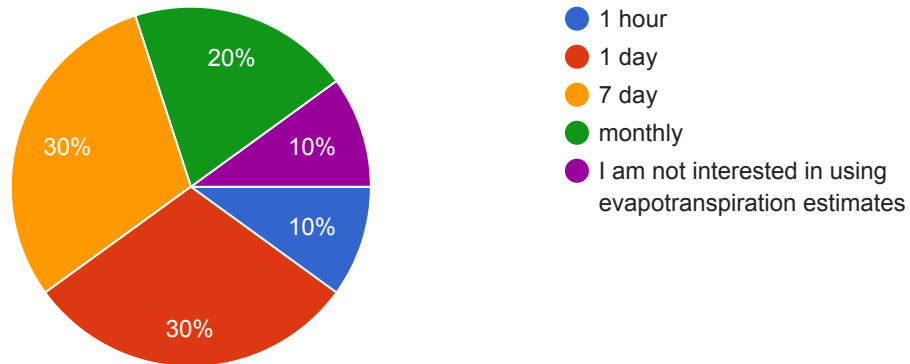
En cultivos leñosos se necesita el dato con la mayor precisión posible.

en funció dels cultius presents al camp



Which temporal resolution would you need for satellite evapotranspiration products?

10 risposte



Can you provide a reason for the temporal resolution selected and which will be the benefit for your system? (leave it blank if you are not interested in evapotranspiration)

7 risposte

Every 4 hours would enable to monitor the rain falls.

I will be able to calculate the correct amount of water and avoid stress for tomato which is very sensitive.

Similar respuesta a la anterior referente a la resolución para el agua de riego

For us seasonal or even yearly

LO CONSIDERO SUFICIENTE

Irrigation scheduling is based at daily temporal step

pel càlcul de programació de reg setmanal



Google Moduli

