Improving irrigation efficiency toward a more sustainable agriculture

Riferimenti
Tipo di progetto
Gruppo Operativo

Acronimo
MIrAgE

Tematica
Risorse idriche

Information
Time frame
2016 - 2018

Durata
24 months

Partners (no.)
9

Regione
Emilia-Romagna

Comparto
Multifiliera

Localizzazione
ITH51 - Piacenza
ITH52 - Parma

Costo totale
€162.717,92

Fonte di finanziamento principale
Programma di sviluppo rurale

Programma di sviluppo rurale
2014IT06RDRP003: Italy - Rural Development Programme (Regional) - Emilia Romagna

Parole chiave
Fertilisation and nutrients management
Water management

Sito web
http://dipartimenti.unicatt.it/diproves-progetti-di-ricerca-mirage

Project status
completed

Objectives
The basic purpose is the assessment of the convenience in replacing traditional irrigation (flow, rain) with innovative and more efficient systems, based on surface and subsurface drip irrigation (SDI). In summary, the advantages of these technics are lower water consumptions, higher water use efficiency, simplification of business management and reduction of the costs of cultivation, and also a lower energy requirements and lower greenhouse gas emissions.
Another purpose is solve the lacking relating to the best mode of water application depending on soils and crops and on the possibility of combining fertilization of crops (doses, types, shifts), as well as on the risks of clogging of drippers.

Activities
In the farms that have already installed a SDI plant it will performed a comparison between SDI and drain irrigation, meanwhile in the others farms it will be compared surface drip irrigation and rain irrigation. All the soils interested by the trials will be analyzed for a complete characterization. For each farms an annual report will be compile reporting all the production and management data, the report will be the base for future planning and improvement. At the end of the project a technical report will summarize all the activities done in each farm, reporting success (and potential failures) of the tested technologies in all the soil types and conditions.

Partenariato

Role	Azienda	Address	Telephone	E-mail
Leader	Università Cattolica del Sacro Cuore - Dipartimento di Scienze delle produzioni vegetali sostenibili (DI.PRO.VE.S.) - Piacenza	Via Emilia Parmense 84 29122 Piacenza PC Italy	0523 599269	diproves-pc@unicatt.it
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Partner	Fausto Zermani	Strada Valnure 3 29122 Piacenza PC Italy	0523 0464811	faustozermani@msn.com
Partner	Giovanni Zangrandi	Via Argine S. Giorgio 10 29010 Monticelli D’Ongina PC Italy	0523 827033	fagnoni.marinella@libero.it
Partner	Azienda Agraria Sperimentale Stuard S.c.r.l.	Via Madonna dell'Aiuto 7/A 43126 San Pancrazio PR Italy	0521 671569	stuardscrl@arubapec.it
Partner	Consorzio Agrario Provinciale	Via Colombo 35 29122 Piacenza PC Italy	0523 386746	segreteria@terrepadane.it
Partner	Agriform s.c.a.r.l.	Via Torelli 17 43123 Parma PR Italy	0521 244785	info@agriform.net
Partner	Centro Ricerche Zootecniche, CERZOO s.r.l.	Via Castellarino 12 29122 Piacenza PC Italy	0523 506102	mauro.morlacchini@unicatt.it

Pratice abstract

Description
The basic purpose is the assessment of the convenience in replacing traditional irrigation (flow, rain) with innovative and more efficient systems, based on surface and subsurface drip irrigation (SDI). The advantages of these techniques are: lower water consumptions, higher water use efficiency, simplification of business management, reduction of cultivation costs, and lower energy requirements and lower greenhouse gas emissions. Another purpose is solve the lacking relating to the best mode of water application depending on soils and crops and on the possibility of combining fertilization of crops (doses, types, shifts), as well as on the risks of clogging of drippers.

The project has following expected results:
- solve problems of water supply resulting from the use of lower volumes evenly distributed during the growing season;
- obtain greater efficiency of water and fertilizers use with fractional distributions in times of peak demand by crops;
- improve crop yields and promote better crop health;
- encourage the use of manure and slurry;
- better management and amortization of irrigation facilities and better planning of field operations;
- reduce production costs limiting water volumes used and improve the agricultural sustainability;
- implementation of the technical and advisory services offered by farmers' cooperatives and Land reclamation and drainage authority, directed to farmers for the dissemination of innovative irrigation systems in the territory.

Link utili

Titolo/Descrizione	Url	Tipologia
Sito web del partner Azienda Tadini	http://www.aziendatadini.it	Link ad altri siti che ospitano informazioni del progetto
Sito web del partner CB Piacenza	http://www.cbpiacenza.it	Link ad altri siti che ospitano informazioni del progetto
Sito web del Progetto	http://dipartimenti.unicatt.it/diproves-progetti-di-ricerca-mirage	Sito web
Sito web del partner Stuard	http://www.stuard.it	Link ad altri siti che ospitano informazioni del progetto

Titolo/Descrizione	Url	Tipologia
Sito web del partner Terre Padane	http://www.terrepadane.it	Link ad altri siti che ospitano informazioni del progetto
Relazione tecnica finale	https://agricoltura.regione.emilia-romagna.it/progetti-innovazione/raccolta-pro...	Materiali utili