



Experiences from Greece with setting up research on irrigation of pasture for dairy goats

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The project objectives

- to assess the potential use of sown irrigated pasture for grazing by dairy goats in Greece
- To monitor the results of grazing irrigating on milk yield, milk quality and overall animal health





Project steps

Communicating the idea with the farmer

Setting up the experimental protocol

Field work, data collection and analysis

Feedback to the farmer – implement results



Communicating the idea with the farmer



- Farmers **are reluctant** to make changes in their everyday routine....



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- The key issue is the “**cost and benefit**”
- **The farmer must be convinced that is worth to participate**



Setting up the experimental protocol



- Designate areas within the farm
- Animal selection
- Use of farm machinery-facilities
- Reallocation of farm resources
- Establishing the shown pasture
- Maintaining the pasture (sward height, moisture)
- Subdivide the pasture with electric fencing

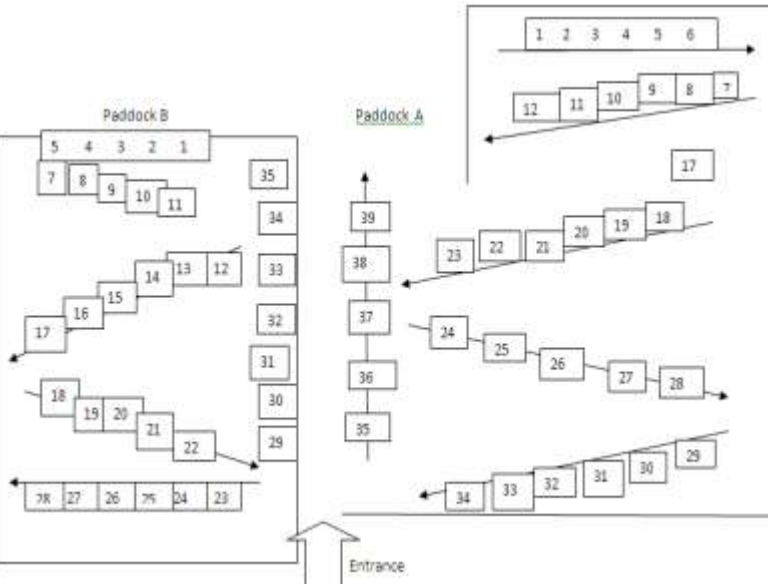




1st challenge

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1st challenge

Sward height



Google





2nd challenge
Farmer
involvement

Parameter	Method	Frequency of data collection	Person responsible
Milk yield and assessment of individual goats	Recorded in parlour by hand milking and weighting the milk	monthly	DAPVET team
Herbage measurements	Adapted methodology	monthly	MSc Student (Sophocles Pinopoulos)
Soil moisture measurements	Adapted methodology	weekly	Farmer – Dimitris Minopoulos
Overall farm financial data	Farm records	monthly	Farmer – Dimitris Minopoulos



Start



One month later



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The farmer was advised to increase the irrigation



The irrigation system failed!

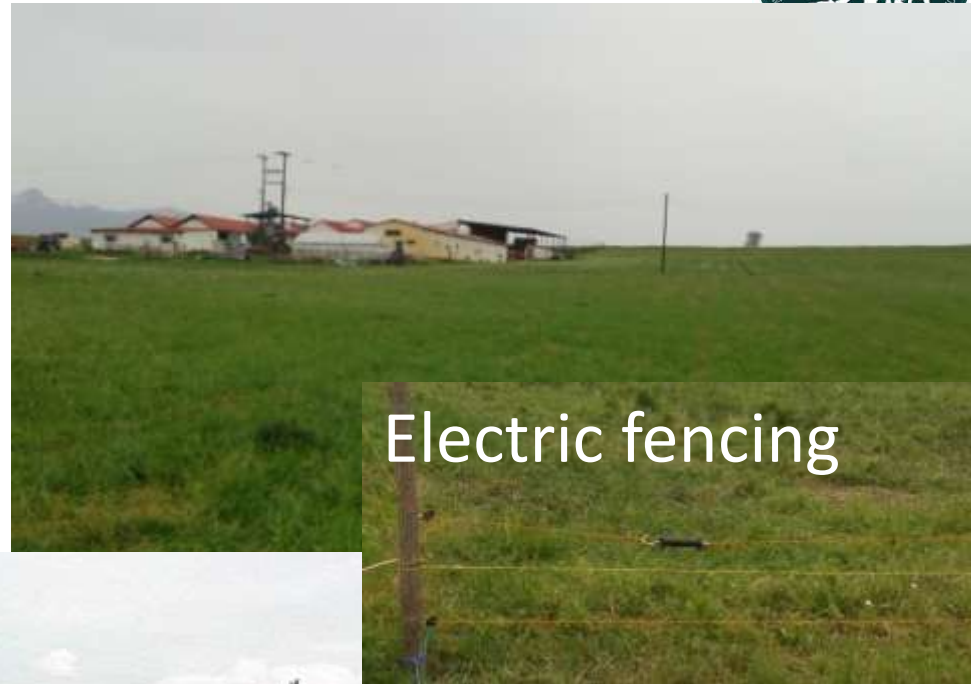




The irrigation system failed!



3rd challenge: maintaining the appropriate stocking density





Results

Table 1. Physical and chemical composition of diets offered to dairy goats

Feedstuffs	Moisture (%)	Ash (%)	Total fat (%)	crude protein (%)	crude fiber (%)
Ration fed indoors					
Concentrate	9,8	8,5	2,5	21,3	7,1
Alfalfa hay	9,3	6,5	2,3	22,8	32,2
Barley Straw	6,6	8,5	0,9	7,8	36,7
Silage	65,3	4	4,8	3,6	18,3
Grazing					
Meadow hay	82,1	2,5	3,9	6,3	8,6

Goats	Milk yield	fat (%)	Protein (%)	Lactose (%)	SNF (%)
Grazing	2231 gr	5,05	3,48	4,25	8,64
Control	1785 gr	3,1	3,08	4,45	8,22



Feedback to the farmer – implement results

- The use of irrigated sown pasture in semi-intensive dairy goat production systems in Greece is a promising practice considering the cost of feeding indoors
- The effective management will be the key of success in practice



Thank you



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