

Dynamic Oil Olives Plot Fertilization Planning

To maximize the yield and profit by giving in each stage exactly the amount of fertilizers required and optimize resources and reduce environmental impact.

The service is provided throughout the year for each plot separately:

The basis for planning, minerals disposal values, taken from olives and leaves during harvest.

Based on the disposal values, the initial annual fertilization program is calculated and divided into months according to the expected demand, the phenological stage.

NATAR Agri-Tec										Input Plot Harvest Data									
NATAR - P.O.B 3069 Givat Ada 3780800 Israel - Tel: +972-50-2476595										info@nataragritec.com Date: 10/01/19									
Customer					Top Olives Ltd.					Crop					Kornelki				
Plot					Kornelki 2013					Soil					Silt				
Harvest Month					11					Season					2018				
Hemisphere					N														
No.	M	Sample	Test Date	Month	Period	Temp	Start Bloom	Peak Bloom	Embalm	Hard Kernel	Harvest	% Mineral							
0	+	208	01/11/17	11	0							Leaves	15,000	2.39	0.16	1.38			
+												Fruits	21,560	0.73	0.07	1.04			
+												Soil							

Measure	1	2	3	4	5	6	7	8	9	10	11	12	
Leaves	+		+		+		+		+		+		
Fruits					+		+		+		+		
Soil							+						
Mineral	1	2	3	4	5	6	7	8	9	10	11	12	Total
N	0	0	12	6	23	35	35	6	6	6	6	0	132
P	0	0	5	5	8	5	3	3	1	1	1	0	33
K	0	0	24	24	24	24	12	12	12	12	12	0	154

During the year, according to NATAR-Agri-Tec guidance, samples of leaves, fruits and soil samples are collected for mineral concentrations checks.

No.	M	Sample	Test Date	Month	Period	Temp	Start Bloom	Peak Bloom	Embalm	Hard Kernel	Harvest	% Mineral			
7	+	30709	01/07/18	7	7							Leaves	1.98	0.14	1.24
+												Fruits	0.73	0.07	1.04
+												Soil	11.8	65.6	243.60

The results of the test measurements are fed into NATAR Agri-Tec algorithm to adjust the fertilization quantity recommendation, to maximize yields this season and maintain the fertility of the olive grove next season.

The service provides a monthly fertilizer program - types of minerals, ratio of minerals and quantity required.

Advantages:

- Planning quantities according to the requirements of the trees.
- Relying on simple lab measurements.
- Reduce environmental impact.
- Costs saving.
- No dedicated equipment or sensors are required.
- Easy and inexpensive application.
- Preserving the fertility of the plot.

	Month	1	2	3	4	5	6	7	8	9	10	11	12	Total
Measurements	Period	1	2	3	4	5	6	7	8	9	10	11	12	
Leaves	% Minerals													
	N	1.94		1.94		1.97		1.98		2.00		2.00		
	P	0.12		0.12		0.13		0.14		0.14		0.14		
Fruits	K	0.71		0.71		1.02		1.04		1.09		1.09		
	N					0.73		0.73		0.73				
	P					0.07		0.07		0.07				
Soil	K					1.04		1.04		1.04				
	N							11.80						
	P							65.60						
Alerts	K							243.60						
	Minerals													
	N	H		H										
Leaves	P	L		L		L		L		L		L		
	K							H						
Fruits	N													
	P							L						
	K													
Soil	N							L						
	P							H						
	K													
Units to Fertilize	Minerals													
	N	0	0	11	6	23	35	35	6	6	6	6	6	132
	P	0	0	7	7	8	5	1	1	1	1	1	1	33
	K	0	0	24	24	24	24	12	12	12	12	12	12	154
								N - Low						
		P - Low		P - Low		P - Low		P - Low		P - Low		P - Low		

Precise fertilization needed to ensure profit with minimal impact on the environment