

# Wheat-to-Bread Processing Facilities Mapping

STUDY FOR NORTHWEST SYRIA NOVEMBER 2021



## Introduction

To inform the bread support programs in Northwest Syria (NWS), iMMAP, in collaboration with the Food Security and Livelihood (FSL) Cluster in the southern Turkey hub and the Bakeries and Bread Coordination Group (BBCG), conducts a regular mapping and monitoring exercise of the processing facilities in the wheat-flour to bread value chain in NWS. This exercise aims to:

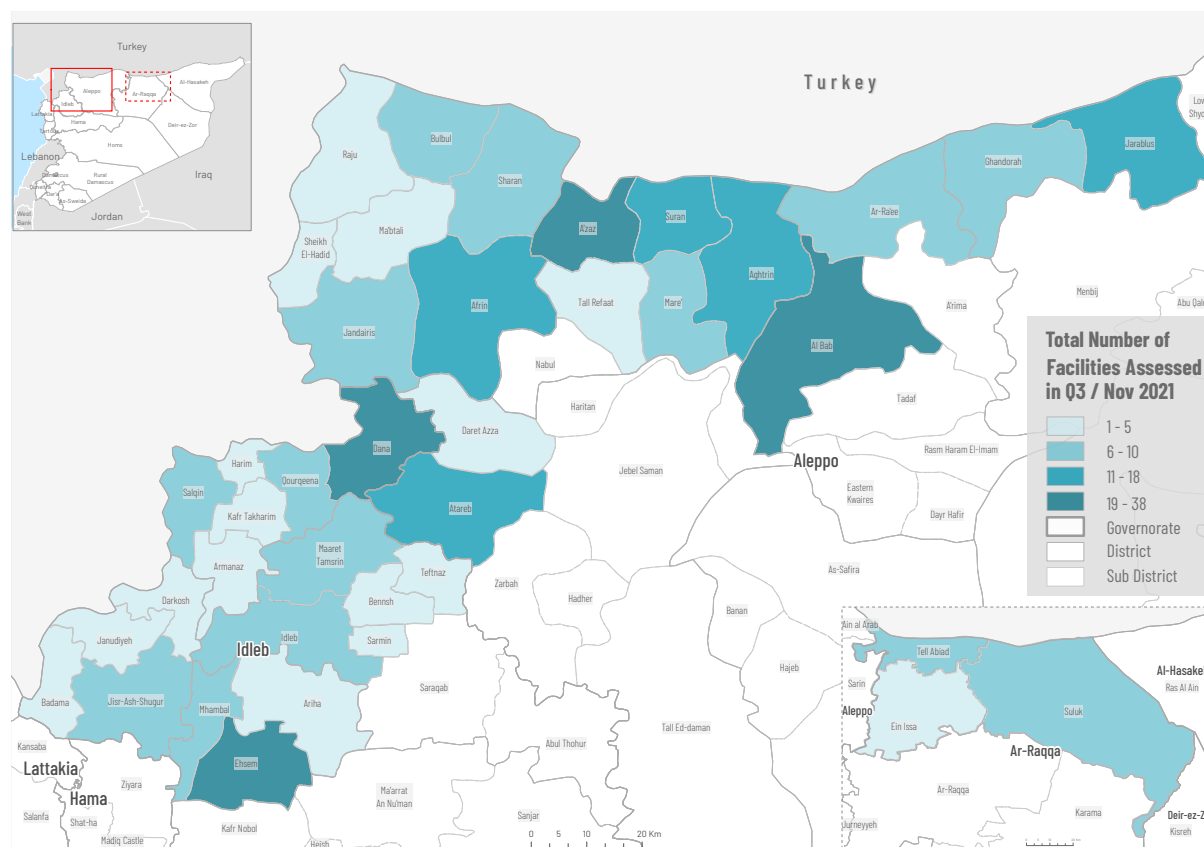
- Assess the capacity and functionality of wheat-flour to bread processing facilities in NWS.
- Assess accessibility and affordability of bread in NWS.
- Identify existing gaps in bread production in NWS to meet the bread needs of the local population
- Identify the main production barriers and needed support to fill this gap.

The sixth round of the Wheat-flour to bread processing facilities mapping exercise in NWS was conducted in Q4, November 2021. iMMAP's data collection partner and 16 BBCG members conducted the data collection. Thirty-eight sub-districts were covered across 3 governorates: 18 sub-districts in Idlib governorate, 17 sub-districts in Aleppo governorate, and 3 in Ar-Raqqa governorate. The total number of assessed facilities was overall, 349 wheat-flour to bread processing facilities were mapped in NWS; 319 were bakeries, 26 were mills, and 4 were silos.

Below are the preliminary findings and recommendations, and this is the [link](#) for the interactive dashboard:

## Key Findings

The percentage of reported operating bakeries was 74% (n=236) of all assessed bakeries. Compared to the previous round in Q2, 2021, the percent of non-operational bakeries increased by 7% (from 63 nonoperational bakeries in Q2, 2021 to 83 nonoperational bakeries in Q4, 2021). On the other hand, 31% of the mapped mills (n=8) reported that they were operational, and 33% of the mapped silos (n=1) reported that they were operational.



Map 1: Assessed Facilities in NES, November 2021

# Wheat-to-Bread Processing Facilities Mapping

## STUDY FOR NORTHWEST SYRIA NOVEMBER 2021

- **Bread availability in NWS is still not meeting the local standard of minimum bread quantity needs.**

The individual daily portion of produced bread in NWS was limited to 220g, representing only 67% of the local standard minimum daily needs of bread (330g) per individual. The situation in Ar-Raqqa governorate was the worst across the assessed governorates in NWS where the individual daily portion of bread was limited to 66g (20% of the local minimum daily needs of bread per person), this was followed by Idlib governorate with 171g (52% of the local minimum daily needs of bread per person), and Aleppo governorate recorded the highest individual daily portion of bread with 318g (96% of the local minimum daily needs of bread per person).

- **Subsidized bread in NWS covers 28 percent of the individual's local standard of minimum bread quantity needs.**

Although bread was reported to be relatively available in NWS, the access and affordability of bread remained a challenge for vulnerable people in NWS, only 43 percent of the total produced bread was subsidized, this means that individual daily portion of subsidized bread was limited to 92g (28% of the local minimum daily needs of bread per person). At governorate level, Idlib governorate recorded the lowest access to subsidized bread where the individual daily portion of subsidized bread was 44g (13% of the local minimum daily needs of bread per person), followed by Ar-Raqqa governorate with 66g as the individual daily portion of subsidized bread (20% of the local minimum daily needs of bread per person). Aleppo governorate recorded the highest access to subsidized bread where the individual daily portion of subsidized bread was 185g (56% of the local minimum daily needs of bread per person).

- **The quantity of produced bread in NWS increased by 8 percent in Q4, 2021.**

The quantity of total produced bread in NWS recorded an 8% increase (525 MT/Week) in Q4, 2021 compared to Q2, 2021 (from 6483 MT/Week to 7008 MT/Week). This overall increase was linked to the notable increase for Aleppo governorate (33%, 882 MT/Week) in the quantity of bread produced in Q4, 2021 as compared to Q2, 2021. However, both Ar-Raqqa and Idlib governorates recorded a decrease in the production of bread in Q4, 2021 as compared to Q2, 2021; 74% (98 MT/Week), and 7% (266 MT/week), respectively

- **Notable decrease in free-bread distribution programs in NWS in Q4, 2021.**

Compared to the previous round, Q2, 2021, NGOs in NWS this round Q4, 2021 showed a major decrease in the quantity of free-bread distribution programs by 47% (from 838 MT/week to 441 MT/Week).

- **Overall increase in bread and flour prices in NWS in Q4, 2021.**

stable at 643 SYP/kg (2 TYR/KG or 0.18 USD/KG), as it was 616 SYP/kg in the previous round, Q2, 2021. However, the average reported selling price of 1 kg of unsubsidized bread in NWS was 1616 SYP/kg (4.8 TYR/KG or 0.46 USD/KG) which increased by 29% from 1250 SYP/kg in Q2, 2021. Locally milled flour and imported flour prices increased in NWS between Q2 and Q4 of 2021. Locally milled flour prices increased from 299 USD/MT in Q2 to 376 USD/MT in Q4, and imported flour price increased from 335 USD/MT in Q2 to 421 USD/MT in Q4.

- **The drought-induced shock on wheat production still affects the availability of local wheat grain and locally milled flour.**

Many bakeries (n=137) reported limited availability of locally milled flour, representing 58% of the assessed bakeries. At governorate level, assessed bakeries in Ar-Raqqa governorate reported the highest level of limited availability of locally milled flour (100% n=4). Overall, in NWS, the main reported reason behind the limited availability of local flour throughout the year was the drought-induced shock on wheat output production. The low levels of rainfall and water availability in North Syria negatively affected wheat production, and in turn, this led to a negative supply shock of wheat and flour to the bread production. The shortage of wheat grain supply may have also caused an increase in wheat and flour prices. Nevertheless, 50% of non-operational mills and 67% of partially functional operational mills reported that the shortage of wheat is one of the main challenges that affected their operation.

- **Mills' capacity is five times more than the bakeries' usage of local flour.**

The maximum reported weekly milling capacity of all operated mills in NWS was 2,833 MT in Q4, 2021, whereas the actual reported weekly milling capacity of all operated mills in NWS was 1,166 MT. On average, the mills' functionality stood at 41% across the assessed operational mills across the NWS region. Also, the assessed operational mills' actual capacity was five times as much as the quantity of locally milled flour used by bakeries.



WHOLE OF SYRIA (WoS)  
**FOOD SECURITY SECTOR**  
Strengthening Humanitarian Response



# Wheat-to-Bread Processing Facilities Mapping

STUDY FOR NORTHWEST SYRIA NOVEMBER 2021



WHOLE OF SYRIA (WoS)  
**FOOD SECURITY SECTOR**  
Strengthening Humanitarian Response



## Recommendations

- **Pay attention to olive harvesting season**

between September and November, it is expected to experience an increase in bread demand at areas that host olive harvesting labourers. Hence, bread production at these areas needs to be expanded to meet the expected bread needs during the olive harvesting season to avoid shortage in bread supply and unexpected increases in the bread's price during that time.

- **Promote business/market linkages and network between wheat farmers and mills**

special focus on Idleb governorate. All assessed operational mills in Idleb reported a sole source of wheat which was the wheat traders. Given the reported production challenges the wheat farmers face and the followed negative coping strategies of switching from wheat to high value profitable crops, promoting these business networks like contract farming between wheat farmers and mills could enhance the wheat farmers' financial and profitable capacity.

- **Calls for advocacy to lobby for the promotion and support of the whole local components of the wheat-flour to bread value chain –**

Stakeholders like the FSL Cluster and iMMAP can develop an advocacy research paper as evidence-based information to encourage and enhance the usage of local wheat and flour in bread production and for putting SMART objectives on how home-grown wheat and flour to bread production could be achieved. By combining data from the recent local wheat production assessment and bakery & bread monitoring assessment, an extraordinarily strong evidence-based advocacy paper could articulate in guiding and coordinating NGOs' efforts towards increasing the dependency on locally produced wheat-flour instead of imported production inputs for bread in NES.

- **Enhance context-aware aspects of the bakeries rehabilitation programs;**

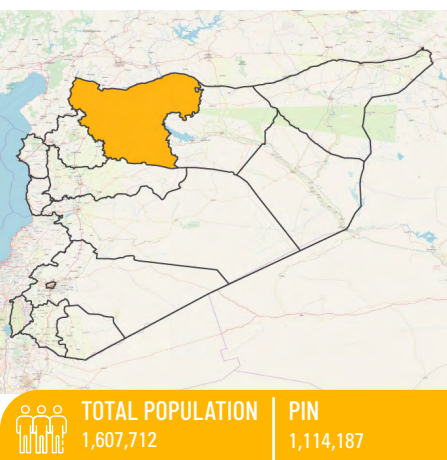
data recorded that some bakeries' representatives preferred local council to conduct the bakeries' rehabilitation given the fact that local council has better understanding of the needs of the local context than NGOs, and the light procedures that LC requires to provide the rehabilitation support as compared with NGOs. Hence, close coordination with Local Councils is encouraged for the bakery rehabilitation programs that are led by NGOs, and updating and/or reviewing the Standards Operational Procedures (SOP) of the bakery rehabilitation programs is also recommended.

# Mapping of Wheat-to-Bread Processing Facilities

Aleppo November 2021



WHOLE OF SYRIA (WoS)  
FOOD SECURITY SECTOR  
Strengthening Humanitarian Response



**BAKERIES**

**172**

## Bakery Status



### Reasons for Non-Operation

No Access to Support

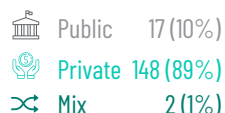
High Operational Cost

Machine Needs Rehabilitation

### Functionality



### Ownership



**CURRENCY USED**

USD 2%

TL 87%

SYP 11%



**QUALITY CONTROL**  
(LAB TESTING)

**33**

## Bread Production

### Daily Production (MT)



Price (TL) /KG

1-3

2-8

2-9

Daily Production 512 MT

Full Daily Capacity 1,258 MT

Current Productivity



Daily Bread Needs of Total Population 531 MT

Daily Bread Needs of PIN Population 368 MT

Subsidized Bread Availability to PIN



Average Subsidized Bread Package Weight 724g

Average Unsubsidized Bread Package Weight 600g

## Bakery Management

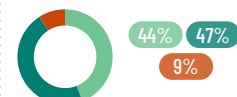
## Availability

● Always Available ● Fairly Available ● Not Available

### Bread



### Local Flour



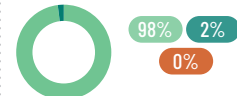
### Imported Flour



### Yeast



### Fuel



## Support Status

Never Received Support 38 (29%)  
Used to Receive Support 5 (4%)  
Currently Receive Support 88 (67%)

Type of Support



Source of Support



## Source and Price of Flour

Imported Flour 370-520 \$/MT  
88%

Local Flour 240-450 \$/MT  
12%

Trader

51%

20%

Mill

0%

2%

LC

6%

29%

NGO

2%

2%

AFAD

41%

0%



**MILLS**

**13**

## Mills Status



### Reasons for Non-Operation

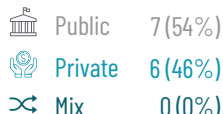
High Operational Costs

Wheat Shortage

### Functionality



### Ownership



### Reasons for Limited Functionality

Wheat Shortage

Fuel/Electricity Shortages

High Operational Costs



**MILLS SOURCE OF WHEAT**

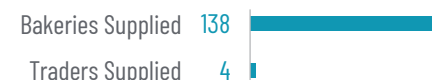
Farmers, NGOs, Traders

## Milling Capacity



Production Functionality 42%

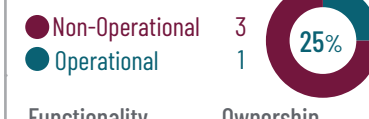
## Market Actors Supplied by Mills



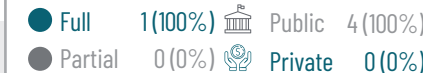
**SILOS**

**4**

## Silos Status



### Functionality



### Ownership



### Reasons for Non-Operation

Wheat Shortage, Machines & Building Need Rehabilitation



**SILOS SOURCE OF WHEAT** Farmers

## Needed Support for Silos

Building Rehabilitation 1

Machine Rehabilitation 1

Estimated Cost of Machines and Rehabilitation \$ 5,000

## Silos Capacity

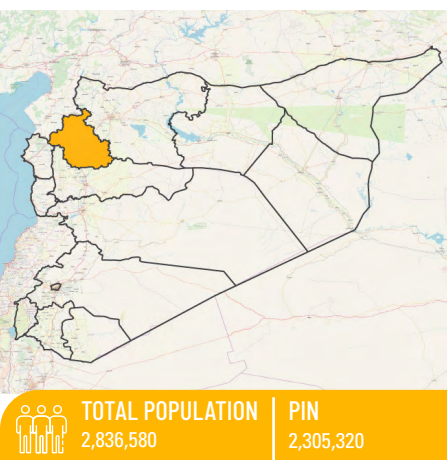
Silos Maximum Storage Capacity 12,000 MT

# Mapping of Wheat-to-Bread Processing Facilities

Idleb November 2021



WHOLE OF SYRIA (WoS)  
FOOD SECURITY SECTOR  
Strengthening Humanitarian Response



## BAKERIES 133

### Bakery Status



#### Reasons for Non-Operation

High Operational Cost  
No Access to Support  
Competition

#### Functionality

Full 39 (39%)  
Partial 62 (61%)

#### Ownership

Public 19 (17%)  
Private 95 (82%)  
Mix 1 (1%)

## CURRENCY USED

USD 4%

TL 96%

SYP 0%

## QUALITY CONTROL (LAB TESTING) 81

### Bread Production

#### Daily Production (MT)

Subsidized Bread 124  
Unsubsidized Bread 304  
Tourist Bread 28  
Free Bread (NGO) 28  
Others 0

#### Price (TL) /KG

1-6  
5-6  
5-6

Daily Production 484 MT

Full Daily Capacity 986 MT

Current Productivity



Daily Bread Needs of Total Population 936 MT

Subsidized Bread Availability to PIN



Daily Bread Needs of PIN Population 761 MT

Average Subsidized Bread Package Weight 1,006g

Average Unsubsidized Bread Package Weight 460g

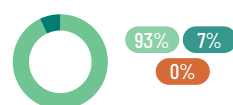
### Bakery Management

### Availability

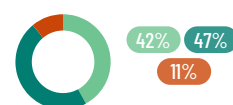
Always Available Fairly Available Not Available

Bakery Owner 77 (76%)  
Private Investor 4 (4%)  
LC 4 (4%)  
Employee 13 (13%)  
Other 2 (2%)

#### Bread



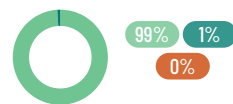
#### Local Flour



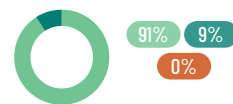
#### Imported Flour



#### Yeast



#### Fuel



### Support Status

Never Received Support 71 (70%)  
Used to Receive Support 4 (4%)  
Currently Receive Support 26 (26%)

#### Type of Support

Rehabilitation 0%  
Operational Support 2%  
Flour 55%  
Yeast 44%

#### Source of Support

NGO LC AFAD  
0 0 0  
1 0 0  
30 0 0  
24 0 0

### Source and Price of Flour

Imported Flour 350-455 \$/MT  
93%

Local Flour 320-450 \$/MT  
7%

Trader 87%  
Mill 0%  
LC 0%  
NGO 9%  
AFAD 0%

73%  
14%  
0%  
14%  
0%



## MILLS 11

11



### MILLS SOURCE OF WHEAT

Farmers, Traders



## SILOS N/A

N/A



### SILOS SOURCE OF WHEAT N/A

N/A

### Mills Status



#### Reasons for Non-Operation

Wheat Shortage

N/A

#### Functionality

Full 0 (0%)  
Partial 1 (100%)

#### Reasons for Limited Functionality

High Operational Costs

#### Ownership

Public 0 (0%)  
Private 2 (100%)  
Mix 0 (0%)

Fuel/Electricity Shortages

N/A

### Milling Capacity

Maximum Capacity 275 MT  
Current Capacity 140 MT

Production Functionality 51%

### Market Actors Supplied by Mills

Bakeries Supplied 30  
Traders Supplied 5

### Silos Status

Non-Operational N/A (0%)  
Operational N/A (0%)

#### Functionality

Full N/A (0%)  
Partial N/A (0%)

#### Ownership

Public N/A (N/A%)  
Private N/A (N/A%)

Reasons for Non-Operation N/A

### Needed Support for Silos

Building Rehabilitation N/A

Machine Rehabilitation N/A

Estimated Cost of Machines and Rehabilitation \$ N/A

### Silos Capacity

Silos Maximum Storage Capacity N/A MT

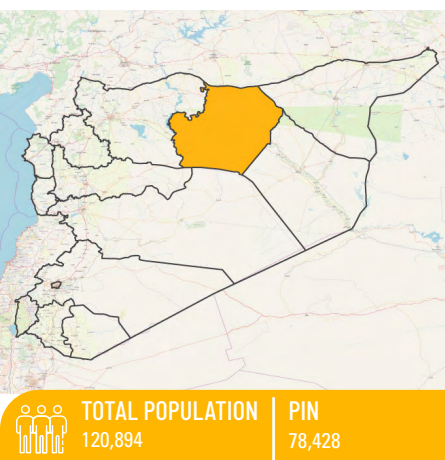


# Mapping of Wheat-to-Bread Processing Facilities

Ar-Raqqa November 2021



WHOLE OF SYRIA (WoS)  
FOOD SECURITY SECTOR  
Strengthening Humanitarian Response



**BAKERIES**

**14**

## Bakery Status



### Reasons for Non-Operation

No Access to Support  
Machines Need Rehabilitation  
No Financial Liquidity

### Functionality

● Full 2 (50%)  
● Partial 2 (50%)

### Ownership

● Public 1 (7%)  
● Private 13 (93%)  
● Mix 0 (0%)



**CURRENCY USED**

USD 0%

TL 100%

SYP 0%



**QUALITY CONTROL (LAB TESTING)**

0

## Bread Production

### Daily Production (MT)

Subsidized Bread 8  
Unsubsidized Bread 0  
Tourist Bread 0  
Free Bread (NGO) 0  
Others 0

Price (TL) /KG

3-4  
N/A-N/A  
6-6

Daily Production 8 MT  
Full Daily Capacity 28 MT

Current Productivity



Daily Bread Needs of Total Population 40 MT

Subsidized Bread Availability to PIN



Daily Bread Needs of PIN Population 26 MT

Average Subsidized Bread Package Weight 1,000g

Average Unsubsidized Bread Package Weight N/Ag

## Bakery Management

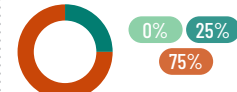
## Availability

● Always Available ● Fairly Available ● Not Available

### Bread



### Local Flour



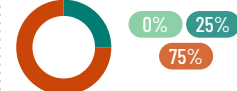
### Imported Flour



### Yeast



### Fuel



## Support Status

Never Received Support 2 (50%)  
Used to Receive Support 0 (0%)  
Currently Receive Support 2 (50%)

Type of Support

Rehabilitation 0%  
Operational Support 0%  
Flour 100%  
Yeast 0%

Source of Support

NGO LC AFAD  
0 0 0  
0 0 0  
0 2 0  
0 0 0

## Source and Price of Flour

Imported Flour 360-450 \$/MT  
100%

Local Flour 360-370 \$/MT  
0%

Trader 25%  
Mill 0%  
LC 75%  
NGO 0%  
AFAD 0%



**MILLS**

**2**

## Mills Status



### Reasons for Non-Operation

Wheat Shortage  
Machines Need Rehabilitation

### Functionality

● Full 1 (100%)  
● Partial 0 (0%)

### Reasons for Limited Functionality

N/A

### Ownership

● Public 0 (0%)  
● Private 2 (100%)  
● Mix 0 (0%)



**MILLS SOURCE OF WHEAT**

Farmers, Traders

## Milling Capacity

Maximum Capacity 124 MT  
Current Capacity 15 MT

Production Functionality 12%

## Market Actors Supplied by Mills

Bakeries Supplied 1  
Traders Supplied 7



**SILOS**

**1**



**SILOS SOURCE OF WHEAT** N/A

## Silos Status



### Functionality

● Full 0 (0%)  
● Partial 0 (0%)

### Ownership

● Public N/A (N/A%)  
● Private N/A (N/A%)

### Reasons for Non-Operation

Fuel/Electricity/Wheat Shortage, Machines & Building need rehabilitation

## Needed Support for Silos

Building Rehabilitation 0  
Machine Rehabilitation 0  
Estimated Cost of Machines and Rehabilitation \$0

## Silos Capacity

Silos Maximum Storage Capacity

0 MT

# Annex Table 1: NWS Bread Needs and Production Gap Analysis



WHOLE OF SYRIA (WoS)  
FOOD SECURITY SECTOR  
Strengthening Humanitarian Response



Sub-District	Total population	PIN	Weekly bread needs of population in MT	Weekly bread needs of PIN in MT	Weekly subsidized bread in MT	Weekly unsubsidized bread in MT	Weekly unsubsidized tourist bread in MT	Weekly NGO-free bread in MT	Weekly other types of bread in MT	Total weekly bread production in MT	Bread availability to the population - % of population bread needs covered by total production	Subsidized bread availability to the population - % of population bread needs covered by subsidized & free bread	Subsidized & free bread availability to PIN - % of PIN bread needs covered by subsidized & free bread	Bread production gap in MT per week	Subsidized & free bread production gap in MT per week for total population	Subsidized & free bread production gap in MT per week for PIN	Number of operating bakeries	Number of supported bakeries	Number of unsupported bakeries	%Unsupported bakeries	Weekly full bread production capacity in MT	% Current productivity
Afrin	194,055	107,365	448	248	0	77	21	42	7	147	33%	9%	17%	301	406	206	7	0	7	100%	308	48%
Aghtrn	96,129	61,173	222	141	140	0	0	0	0	140	63%	63%	99%	82	82	1	11	10	1	9%	658	21%
Al Bab	190,541	164,623	440	380	539	28	14	28	0	609	138%	129%	149%	-169	-127	-187	21	18	3	14%	1,463	42%
Ar-Ra'ee	23,640	5,532	55	13	91	0	0	0	0	91	167%	167%	712%	-36	-36	-78	5	0	5	100%	280	33%
Atareb	183,679	122,459	424	283	0	231	0	35	0	266	63%	8%	12%	158	389	248	8	0	8	100%	97,132	0%
A'zaz	301,296	300,381	696	694	245	196	0	56	7	504	72%	43%	43%	192	395	393	20	18	2	10%	1,680	30%
Bulbul	35,613	14,146	82	33	70	0	0	0	0	70	85%	85%	214%	12	12	-37	2	2	0	0%	126	56%
Daret Azza	67,942	54,315	157	125	63	91	49	0	0	203	129%	40%	50%	-46	94	62	5	2	3	60%	392	52%
Ghandorah	30,387	18,281	70	42	161	7	0	21	0	189	269%	259%	431%	-119	-112	-140	7	7	0	0%	385	49%
Jandairis	94,530	30,320	218	70	0	168	0	28	0	196	90%	13%	40%	22	190	42	6	1	5	83%	357	55%
Jarablus	82,055	57,483	190	133	343	42	0	21	0	406	214%	192%	274%	-216	-174	-231	11	11	0	0%	770	53%
Ma'btali	27,799	18,296	64	42	0	217	0	0	0	217	338%	0%	0%	-153	64	42	5	0	5	100%	287	76%
Mare'	69,781	43,636	161	101	133	7	0	0	0	140	87%	83%	132%	21	28	-32	4	4	0	0%	385	36%
Raju	49,351	13,635	114	31	0	63	0	0	0	63	55%	0%	0%	51	114	31	4	0	4	100%	126	50%
Sharan	52,568	31,677	121	73	112	0	0	0	0	112	92%	92%	153%	9	9	-39	4	4	0	0%	217	52%
Sheikh El-Hadid	12,366	7,545	29	17	21	21	0	0	0	42	147%	74%	120%	-13	8	-4	1	1	0	0%	84	50%
Suran	95,980	63,320	222	146	147	14	0	0	0	161	73%	66%	100%	61	75	-1	10	10	0	0%	658	24%
Ein Issa	37,723	19,382	87	45	21	0	0	0	0	21	24%	24%	47%	66	66	24	1	0	1	100%	70	30%
Suluk	38,342	14,362	89	33	35	0	0	0	0	35	40%	40%	105%	54	54	-2	2	2	0	0%	91	38%
Tell Abiad	44,829	44,684	104	103	0	0	0	0	0	0	0%	0%	0%	104	104	103	1	0	1	100%	35	0%
Ariha	104,664	67,534	242	156	0	7	126	7	0	140	58%	3%	4%	102	235	149	5	0	5	100%	427	33%
Armanaz	76,839	54,850	177	127	147	0	0	0	0	147	83%	83%	116%	30	30	-20	3	3	0	0%	217	68%
Badama	53,872	53,310	124	123	0	35	0	0	0	35	28%	0%	0%	89	124	123	2	0	2	100%	98	36%
Bennsh	52,701	32,312	122	75	0	70	0	0	0	70	57%	0%	0%	52	122	75	2	0	2	100%	140	50%
Dana	1,126,535	1,089,705	2602	2517	252	938	70	91	0	1351	52%	13%	14%	1251	2259	2174	37	6	31	84%	2,366	57%
Darkosh	87,166	53,547	201	124	0	7	0	0	0	7	3%	0%	0%	194	201	124	1	0	1	100%	84	8%
Ehsem	32,102	12,020	74	28	0	56	0	0	0	56	76%	0%	0%	18	74	28	3	0	3	100%	252	22%
Harim	71,424	41,808	165	97	0	35	0	0	0	35	21%	0%	0%	130	165	97	4	0	4	100%	315	11%
Idleb	295,287	180,140	682	416	0	308	0	28	0	336	49%	4%	7%	346	654	388	10	1	9	90%	658	51%
Janudiyeh	57,789	42,615	133	98	21	70	7	0	0	98	73%	16%	21%	35	112	77	3	1	2	67%	168	58%
Jisr-Ash-Shugur	103,591	34,808	239	80	105	84	0	0	0	189	79%	44%	131%	50	134	-25	6	4	2	33%	357	53%
Kafr Takharim	35,751	31,364	83	72	63	28	0	0	0	91	110%	76%	87%	-8	20	9	2	1	1	50%	105	87%
Maaret Tamsrin	330,657	323,705	764	748	210	84	0	63	0	357	47%	36%	37%	407	491	475	8	7	1	13%	588	61%
Mhambal	43,308	10,185	100	24	35	42	0	0	0	77	77%	35%	149%	23	65	-11	3	1	2	67%	210	37%
Qourqeena	103,628	66,343	239	153	35	28	0	14	0	77	32%	20%	32%	162	190	104	3	2	1	33%	196	39%
Salqin	222,267	189,433	513	438	0	273	0	0	0	273	53%	0%	0%	240	513	438	6	0	6	100%	455	60%
Sarmin	15,665	5,999	36	14	0	49	0	0	0	49	135%	0%	0%	-13	36	14	2	0	2	100%	224	22%
Teftnaz	23,334	15,642	54	36	0	28	0	0	0	28	52%	0%	0%	26	54	36	1	0	1	100%	42	67%