Effect of agroforestry on phenology and components of yield of different varieties of durum wheat

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Agroforestry

Reduction in radiation

Change in thermal time and phenology

Components of yield

Genotype
Introduction

Material and methods

Results

Discussion

Zone 6

Zone 5

Zone 4

Zone 3

Zone 2

Zone 1

Tree 8

Tree 7

Tree 6

Tree 5

Tree 4

Tree 3

Tree 2

Tree 1

Filling variety (30 m)

Filling variety

Code Genotype

1 L3534

2 C+2004D326,262

3 Clovis

4 LAI1823

5 Oued Zenati

6 Perfcom 28

7 Perfcom 34

8 Pop F2

9 Pop Algerie 1

10 Pop Algerie 3

11 Pop F2 + lég salernes

12 Pop F3 + lég salernes

Plants/m²

Tillers/m²

Tillers/plant

Spikes/m²

Spikes/tiller

Grains/spike

Grains/m²

1000 kernels weight

43° 42' 56'' N
3 ° 51' 13'' E
## Means of the different components of yield per genotype and system

<table>
<thead>
<tr>
<th>Genotype or system</th>
<th>Plants/m²</th>
<th>Spikes/tiller</th>
<th>Spikes/m²</th>
<th>1000 kernels weight in g</th>
<th>Grains/spike</th>
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<td>2004D326.262</td>
<td>119.14 (c)</td>
<td>0.52 (ab)</td>
<td>NS</td>
<td>34.10 (ab)</td>
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<td>PopF2</td>
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<td>0.43 (b)</td>
<td>34.69 (b)</td>
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<td>NS</td>
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</tbody>
</table>

### Summary

- **Tillers per m²**
- **Tillers per plant**
- **Grains per m²**
Setbacks:
- The measurements of the phenological stages started too late.
- High density of weeds with different predominant species in each system.

Conclusions:
- Some yield components impacted by agroforestry and/or Genotype, but there was no significant interaction.
- The phenological development was faster in FS:
- Yield was higher in AFS than in FS, showing that light was not the limiting factor.
- The only yield component that was negatively impacted by agroforestry was the number of grains per spike.
- This work did not allow us to correlate the differences in the components of yield with the phenology.
Thanks!!!

Merci!!!

Gracias!!!
References:
