Better fruits with seaweed?

2025

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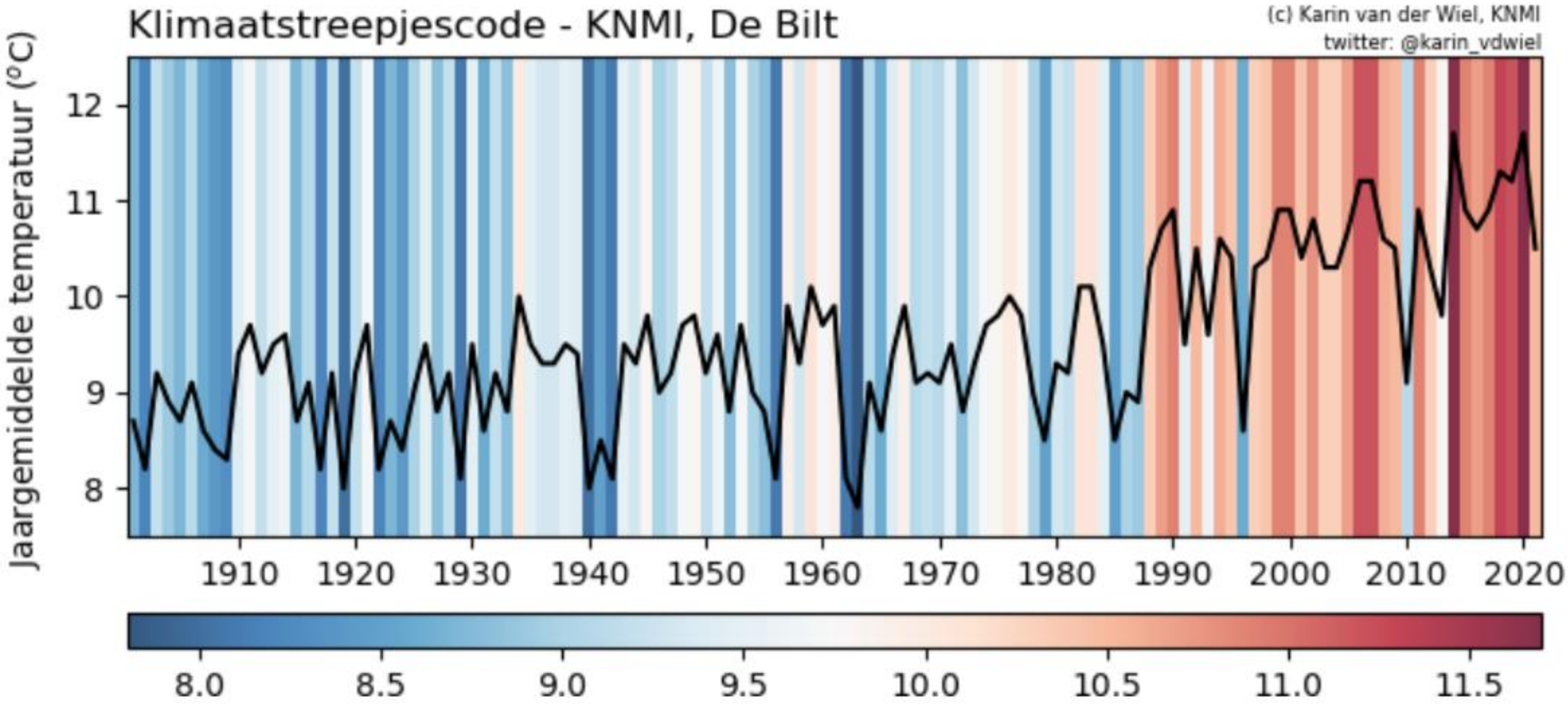
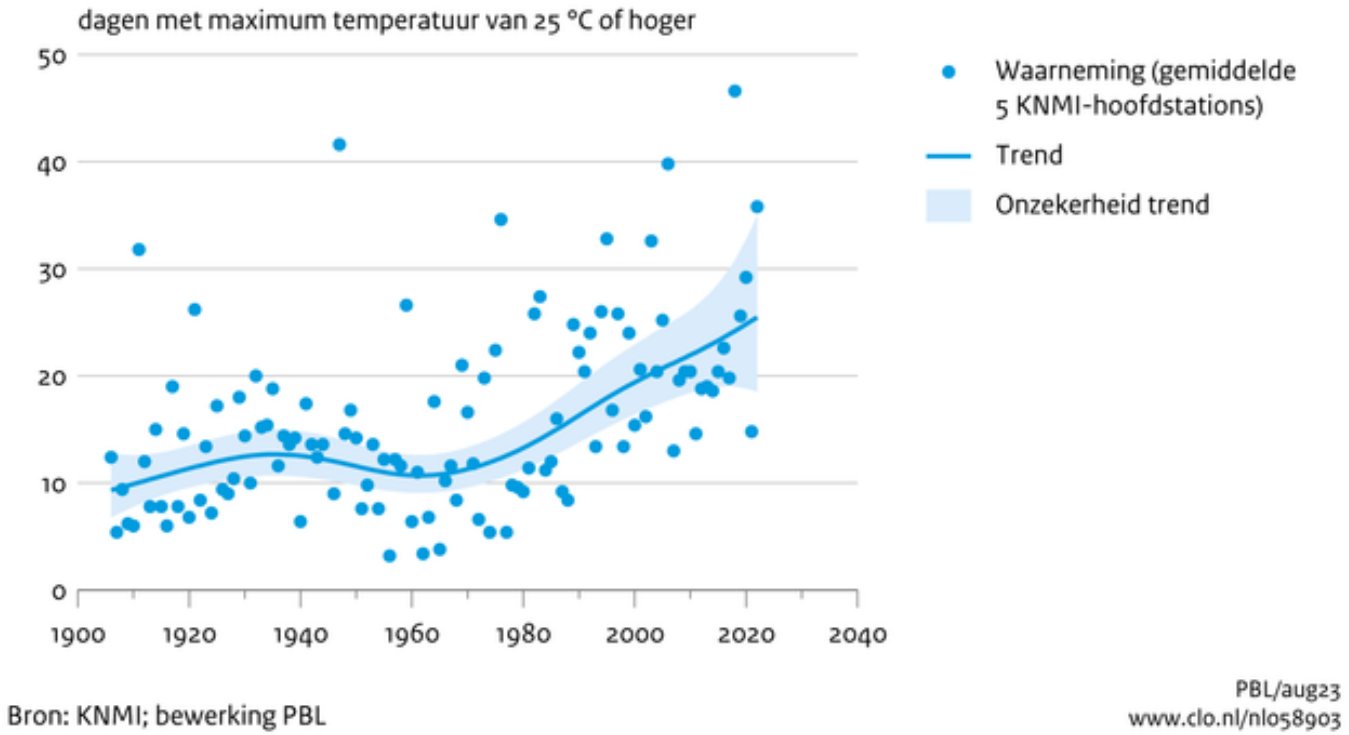

Klimaatstreepjescode - KNMI, De Bilt
(c) Karin van der Wiel, KNMI
twitter: @karin_vdwiel
Jaargemiddelde temperatuur (°C)
12
11
10
9
8
1910
1920
1930
1940
1950
1960
1970
1980
1990
2000
2010
2020
8.0
8.5
9.0
9.5
10.0
10.5
11.0
11.5

Trend: more “beach days”




MODE



The sunburn trigger

UV radiation

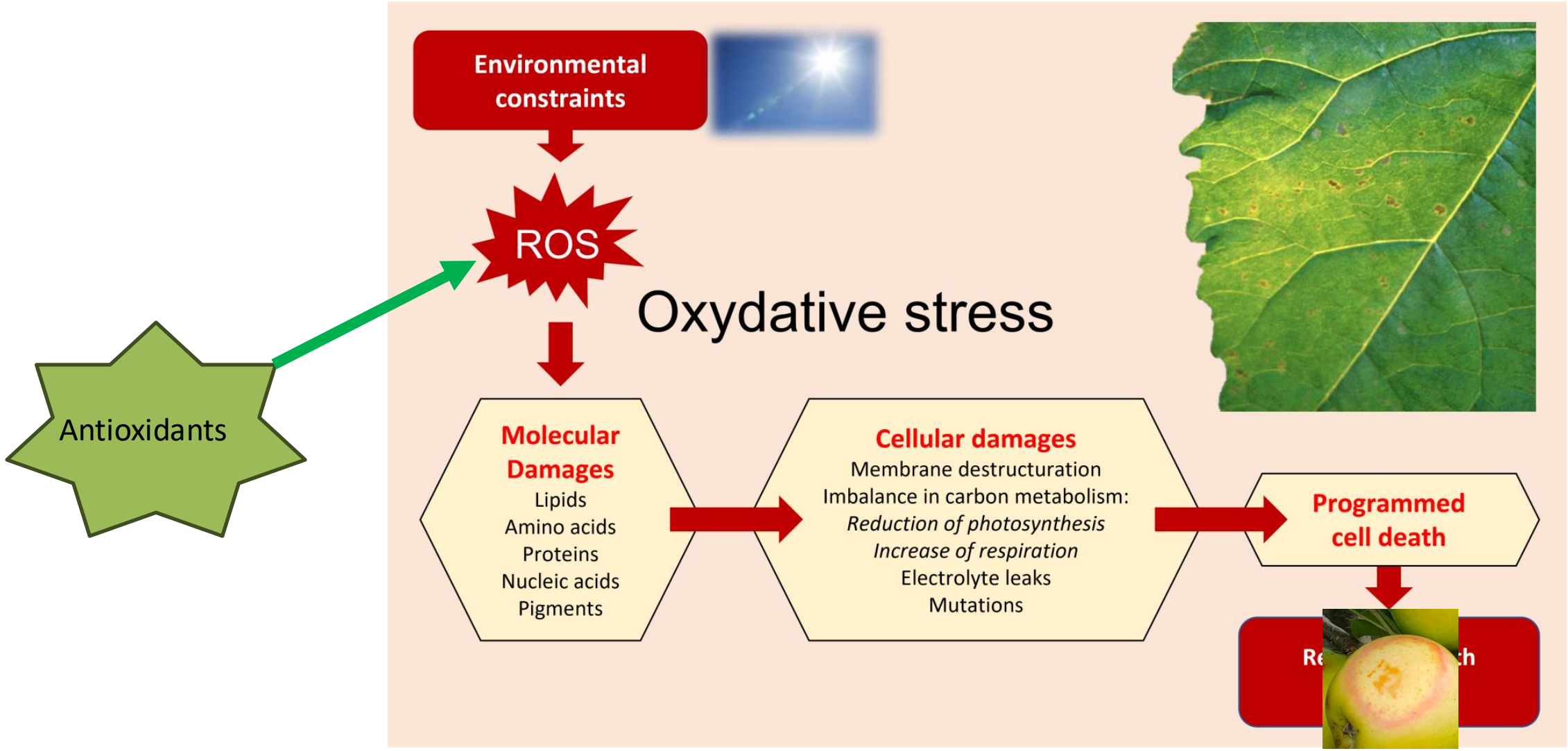
Ascophyllum nodosum

- Triggering the plant defense response
- Improved stress recovery

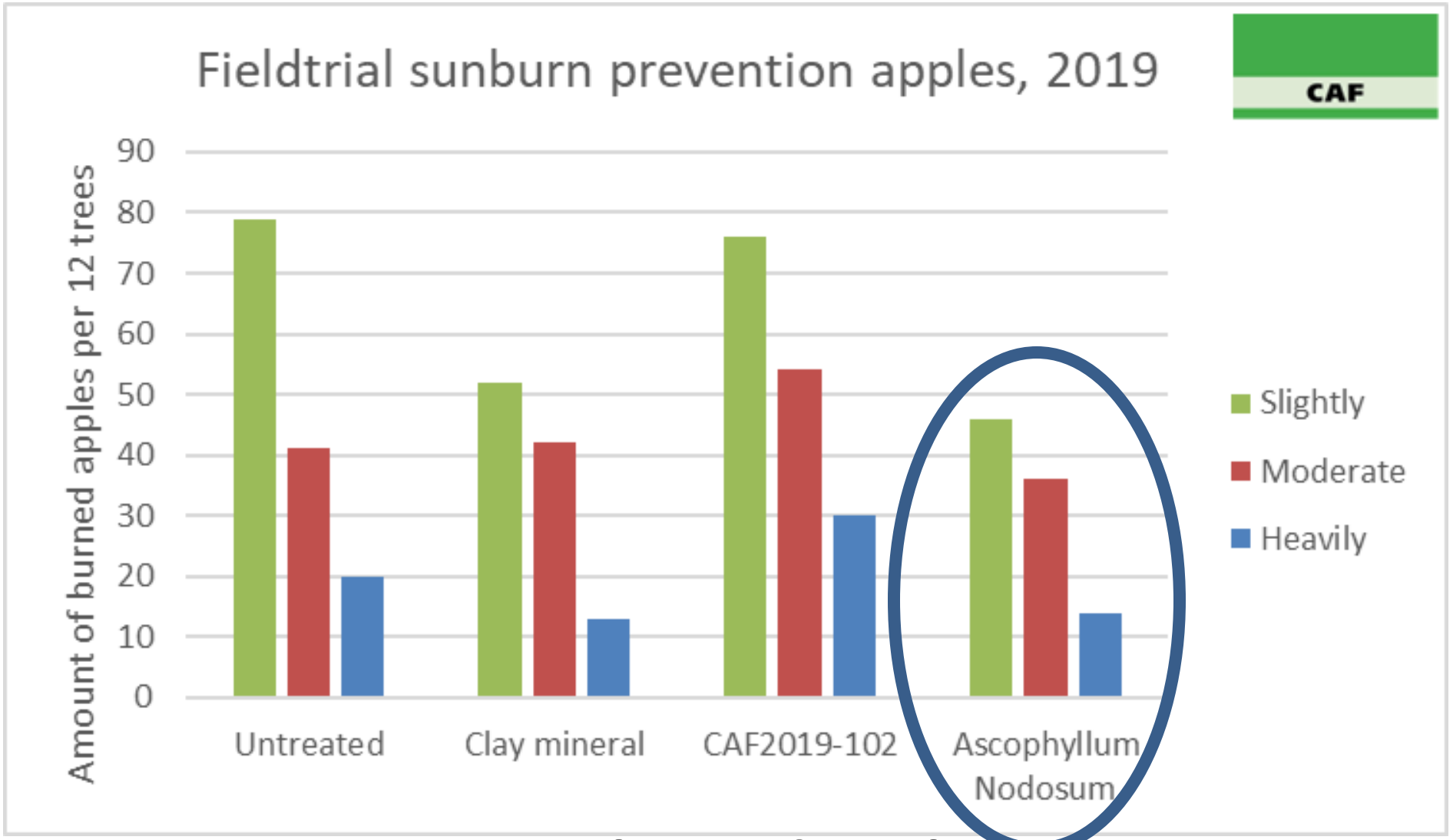
- Application 2-3 days BEFORE the stress

2,5 litre/ha doserate

Reduced stress response trigger



2019 – first experience



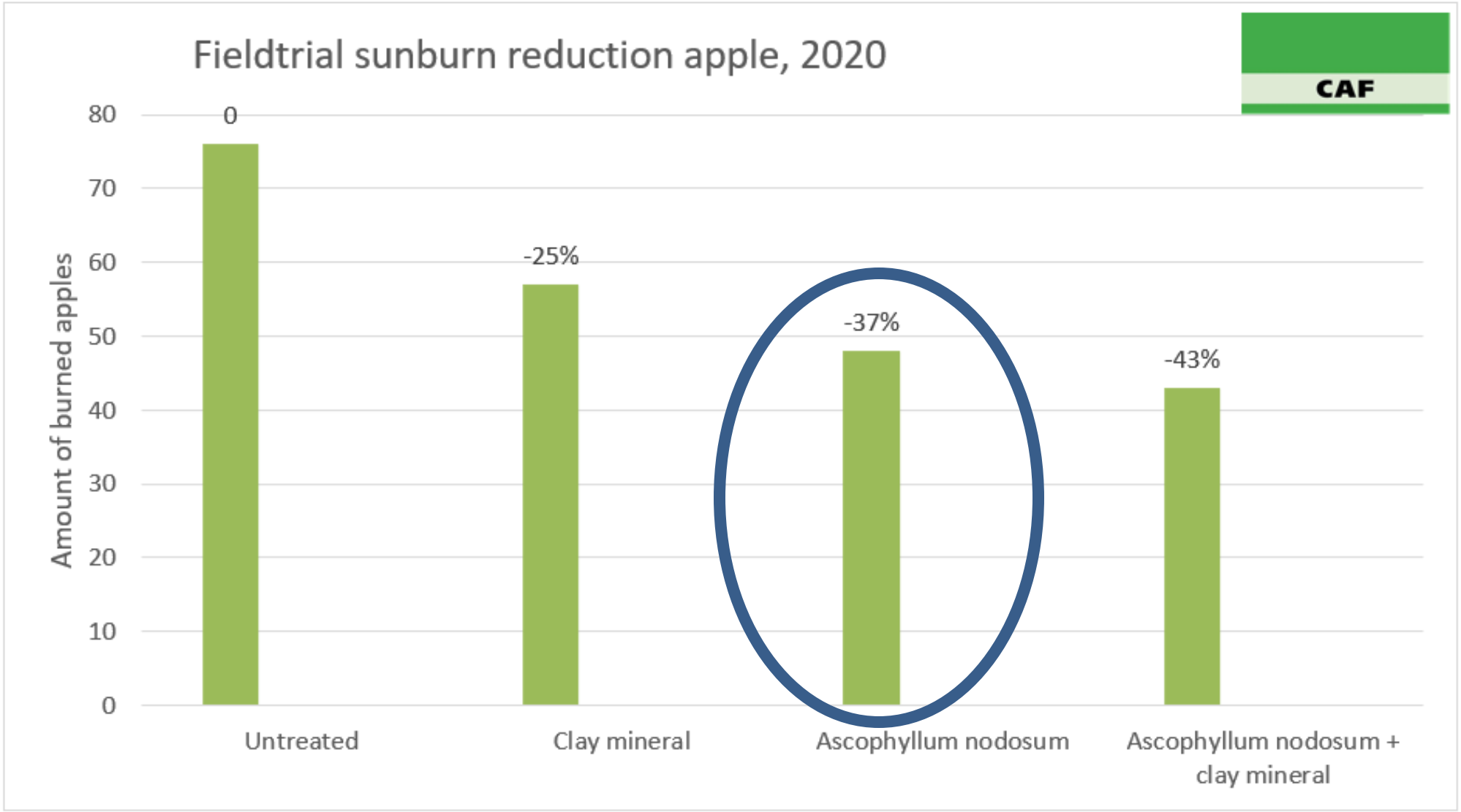
-31% burned apples


Licht

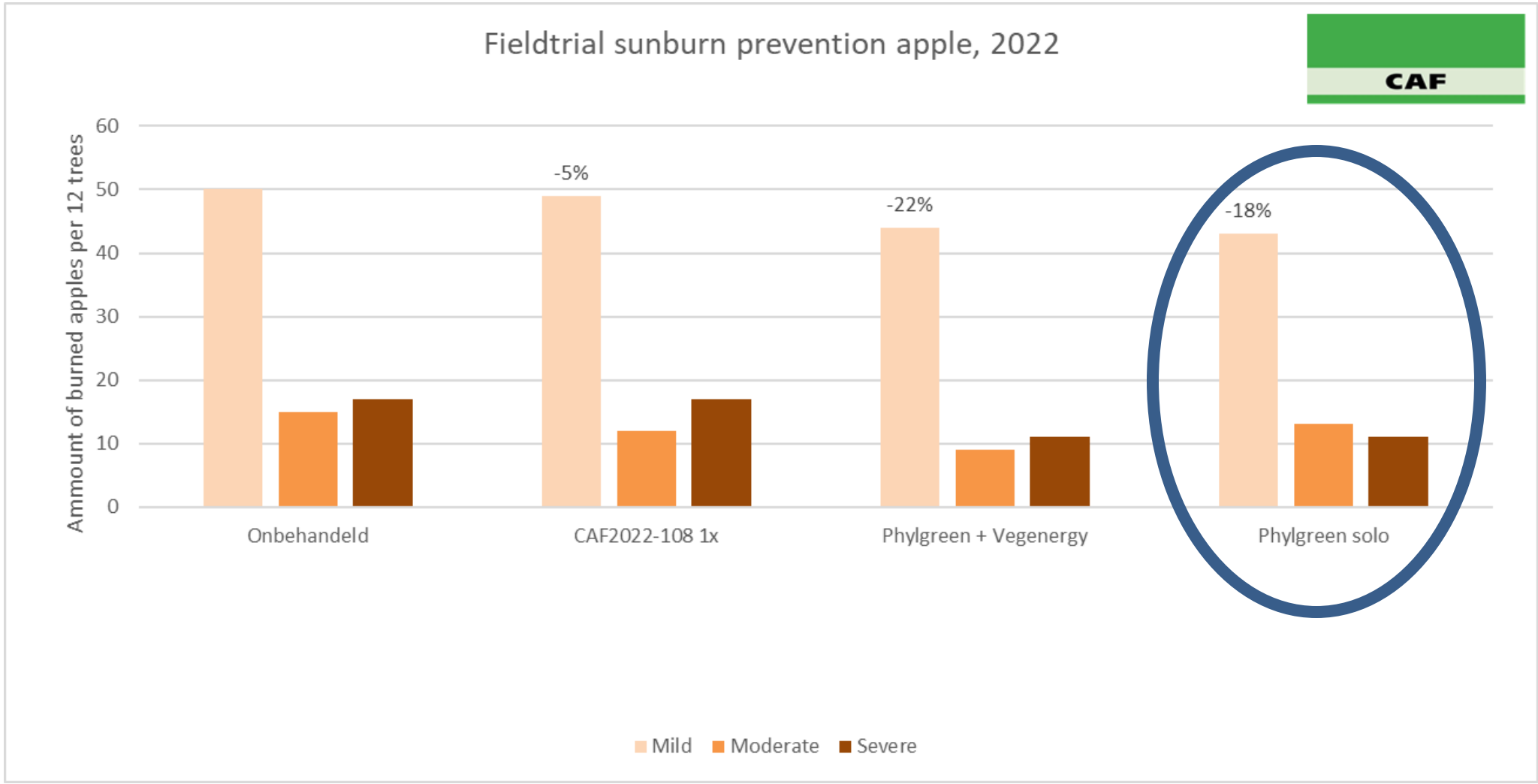

Matig


Zwaar

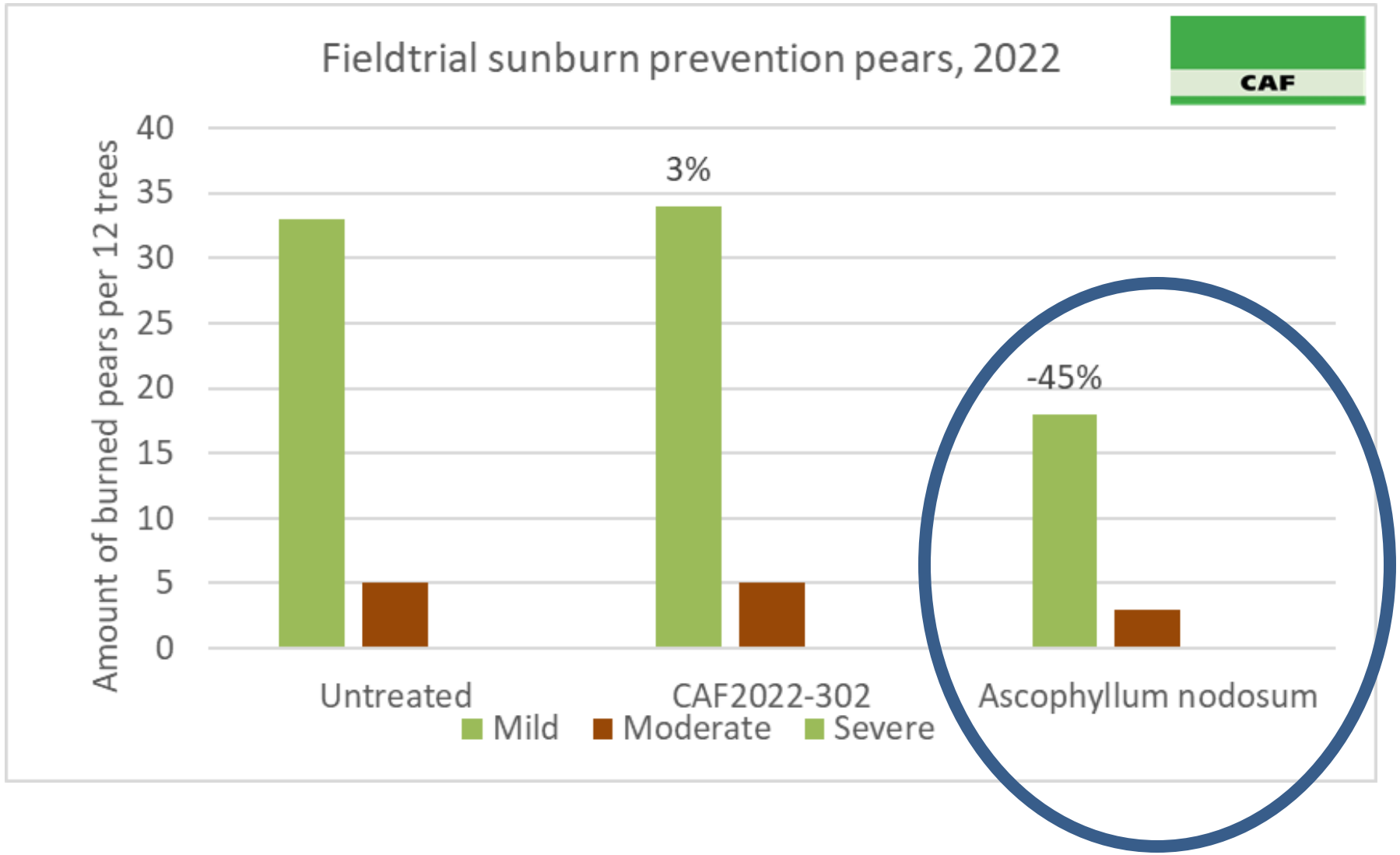
2020


Fieldtrial sunburn reduction apple, 2020
CAF
Amount of burned apples
80
70
60
50
40
30
20
10
0
0
-25%
-37%
-43%
Untreated
Clay mineral
Ascophyllum nodosum
Ascophyllum nodosum + clay mineral

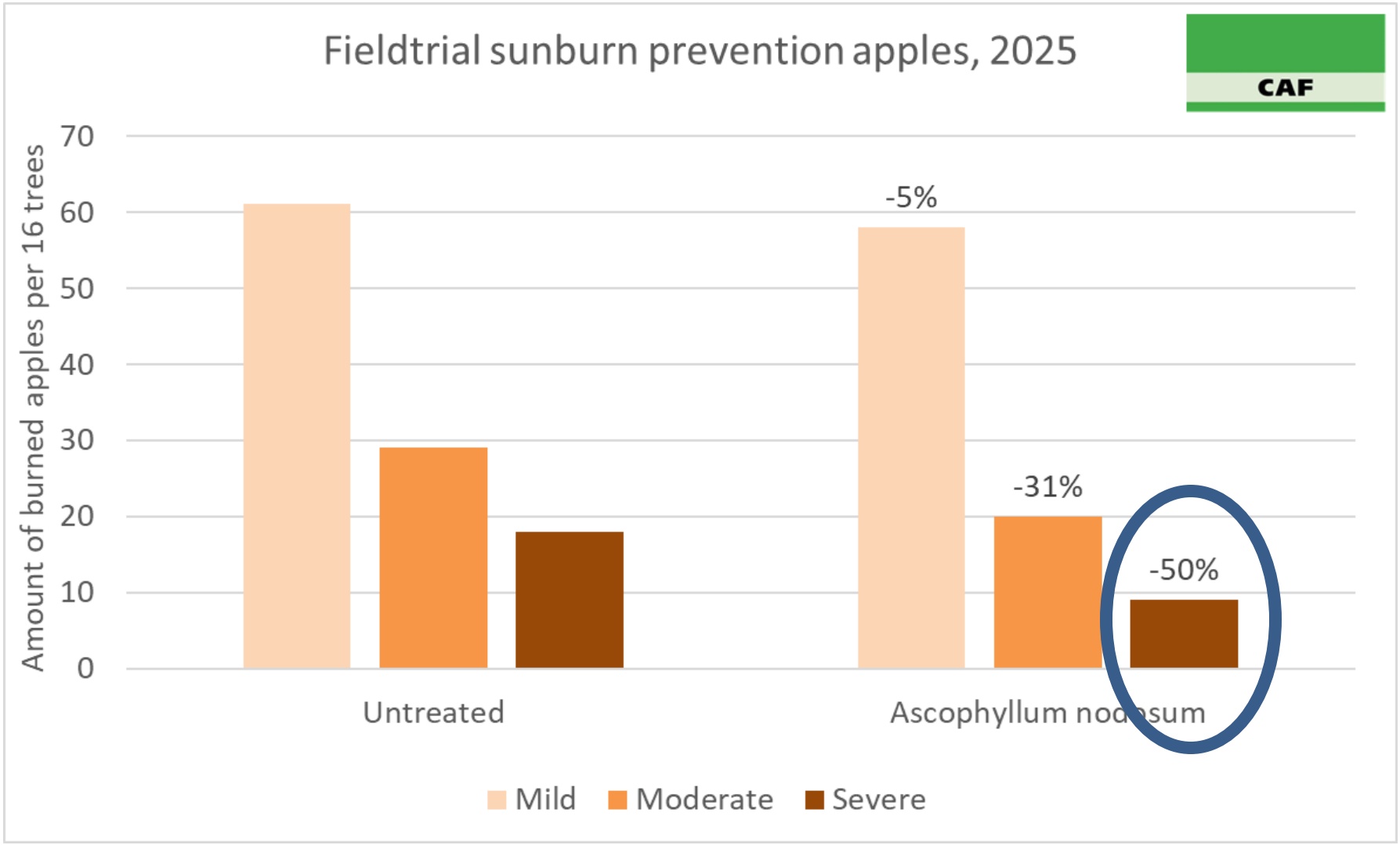
2022


Fieldtrial sunburn prevention apple, 2022
CAF
Ammount of burned apples per 12 trees
60
50
40
30
20
10
0
-5%
-22%
-18%
Onbehandeld
CAF2022-108 1x
Phylgreen + Vegenergy
Phylgreen solo
Mild
Moderate
Severe

2022 but on pears



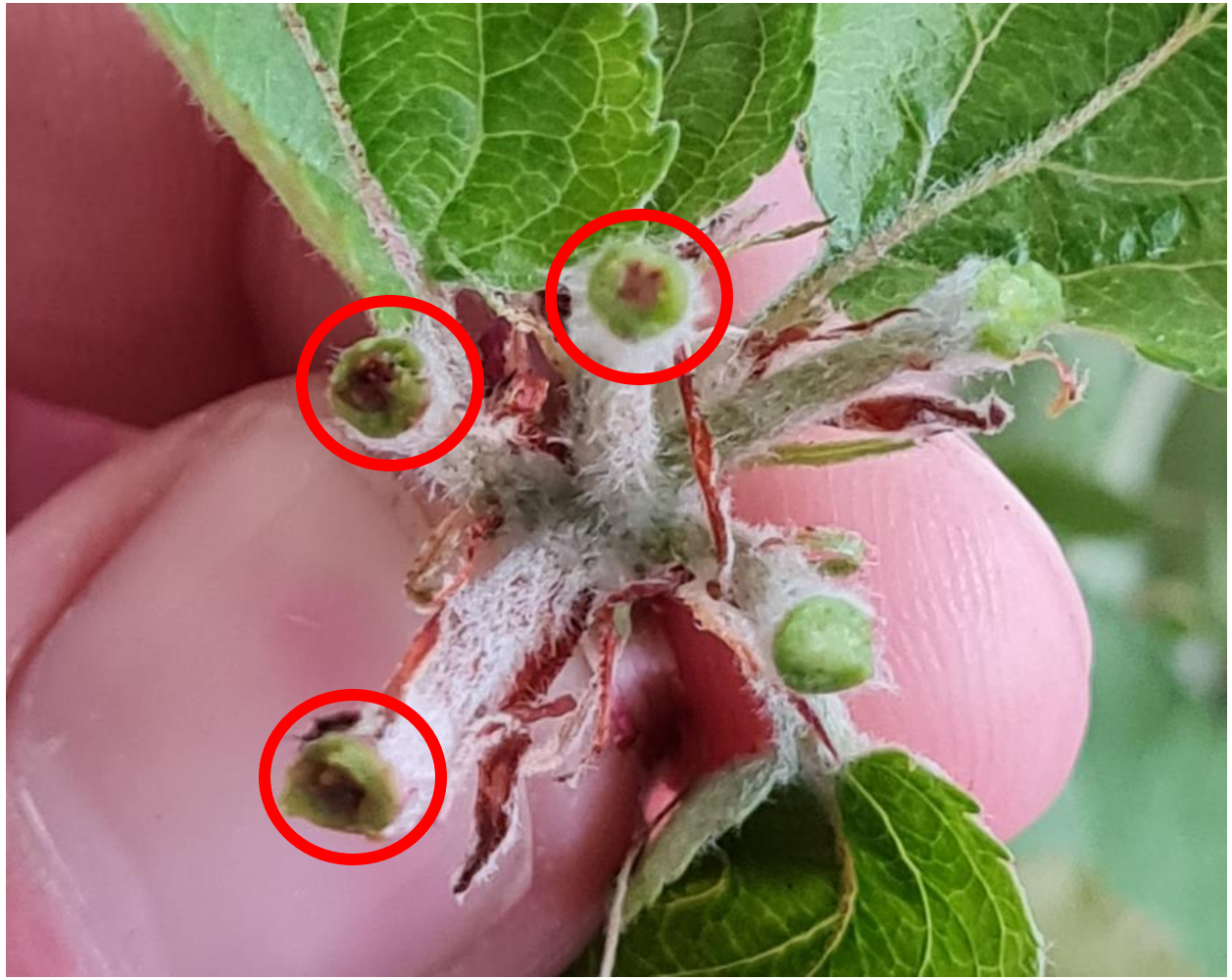
2025 – proof of concept



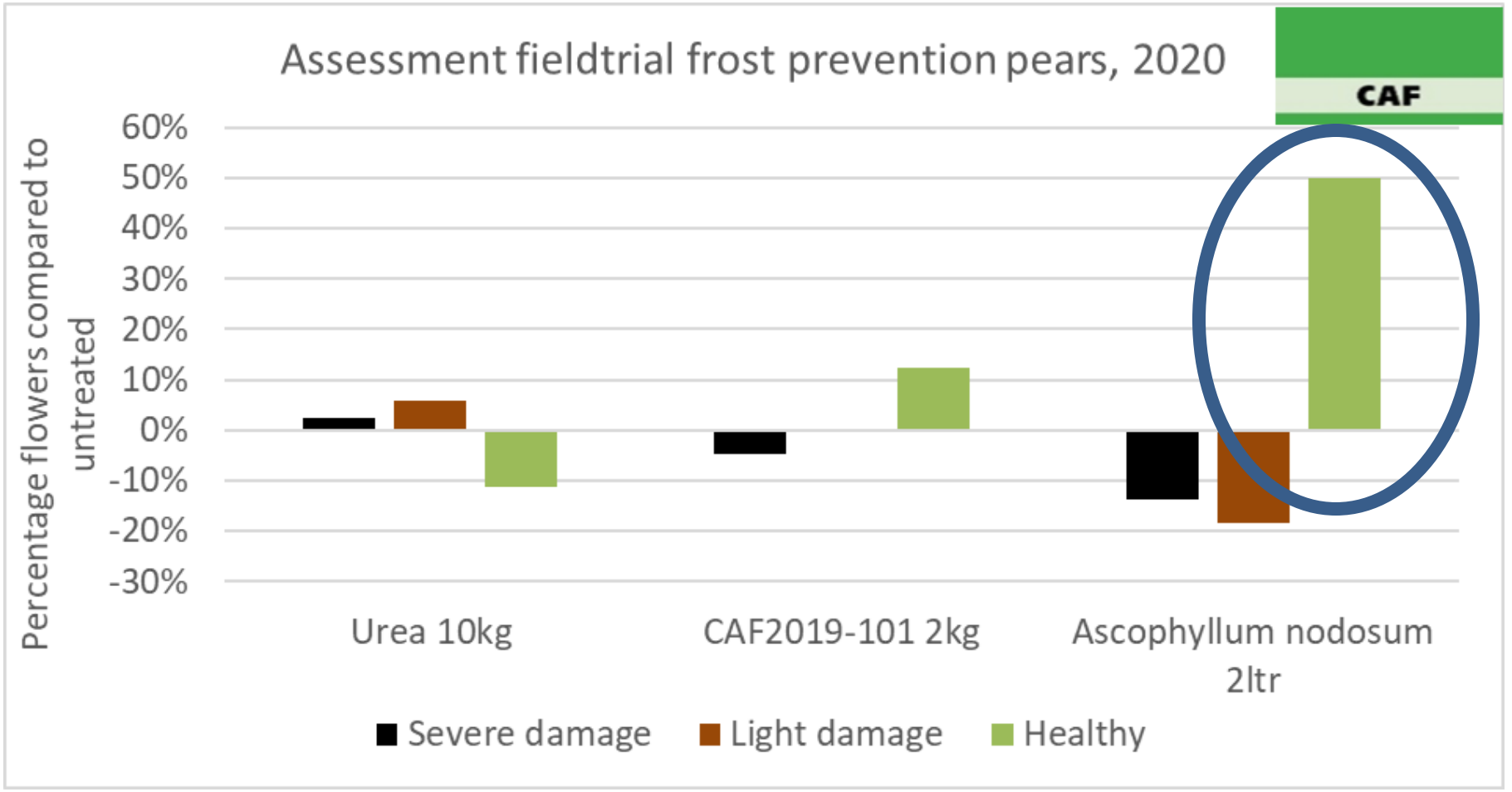
In conclusion

- Ascophyllum nodosum seaweed extract is proven effective to reduce sunburn damage on fruits
- The effects are similar in 4 different seasons
- Our results convinced growers to use this biostimulant, even instead of sprinkler irrigation when the risk for sunburn was not to high

Frost damage

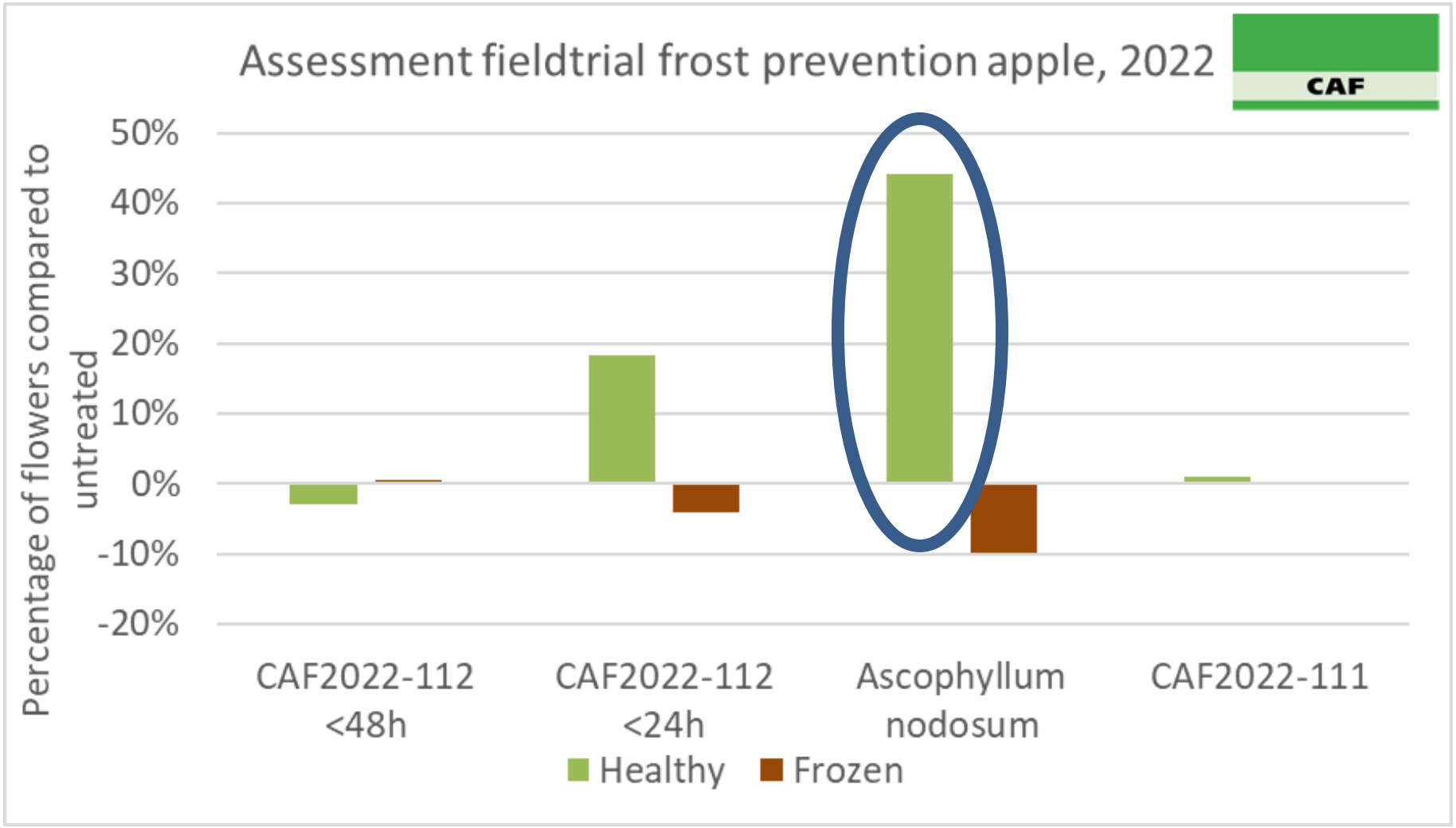


Frost trial 2020

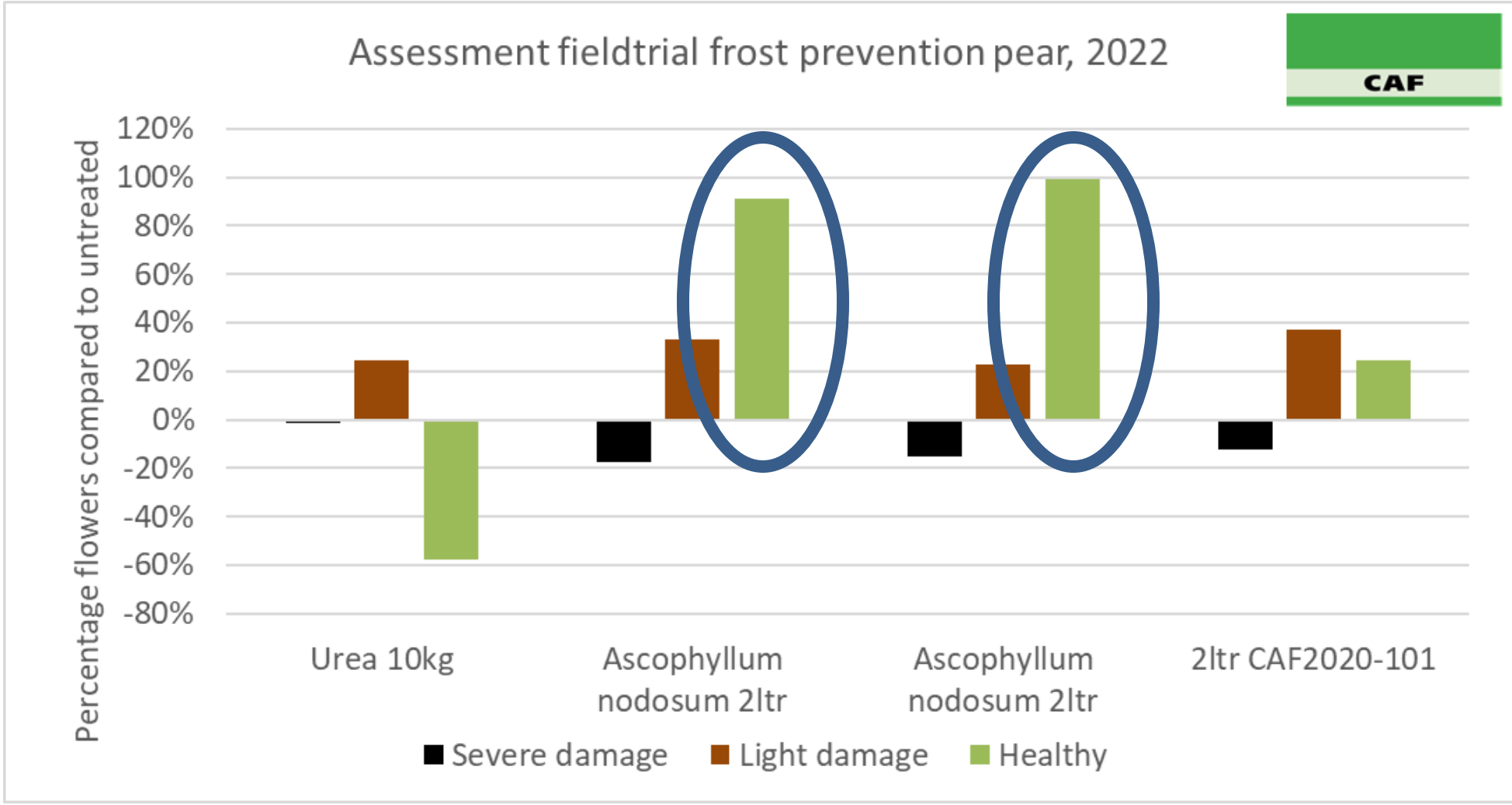


50% more healthy flowers

2022 apple


Assessment fieldtrial frost prevention apple, 2022
CAF
Percentage of flowers compared to untreated
50%
40%
30%
20%
10%
0%
-10%
-20%
CAF2022-112 <48h
CAF2022-112 <24h
Ascophyllum nodosum
CAF2022-111
Healthy
Frozen

2022 pear



***7%** healthy flowers in the untreated control Vs **13%** healthy flowers in the object treated with seaweed

In conclusion

- Ascophyllum nodosum is proven effective in strenthening flowers to reduce frost damage
- The results are again stable over the years
- These results convinced growers without sprinkler irrigation to use seaweed extract to protect their trees

In conclusion

- Biostimulants made from seaweed are benificial in agriculture!
- Changing climate and growth conditions will increase the possibilities with seaweed based biostimulants
- Seaweed biostimulants can:
  - Lower the waterfootprint
  - Increase yield efficacy -> lower CO2 footprint + less food loss
- There is plenty of room for improvement and innovation!

Growers are ready!

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