



**Apple Tradecorp Package
Trial 2
India 2017**

Trial Setup



- **Crop & Variety :** **Apple** var. Royal Delicious
- **Farmer name:** Mr. Rituraj Lakhanpal
- **Place:** Ghourdod, Kullu, Himachal Pradesh, India
- **No. of plants treated:** 20 (250 plants /ha)
- **Crop schedule:** Humistar, Intake, Phylgreen, Trafos Cu, Tradebor, Calitech, Amifol K, Maxflow Mg.
- **Aim:** To enhance quality & increase yield of Apples.
- **Assesment:** Fruit Size, Weight, firmness, Sugar & colour.
- **Note:** 2200 m altitude, Rainfed

Stage-Wise Application Schedule Program

Treatment Package

- ✓ Humistar + Intake
- ✓ Phylgreen200
- ✓ Trafos Cu
- ✓ Tradebor
- ✓ Calitech
- ✓ Amifol K
- ✓ Maxflow Mg

Sr. No.	Crop Stage	Product	Dose ml or g /L	Water Volume Lit.	Method of application
1	Dormancy	Humistar + Inatke	2 ml + 0.25 ml	400	Soil Drenching
2	Tight Cluster	Trafos Cu + Tradebor + Phylgreen	2.5 ml + 0.5 ml + 1 ml	200	Foliar application
3	Pink Bud	phylgreen + Tradebor + Calitech	1 ml + 0.5 ml + 1 ml	200	Foliar application
4	Petal Fall	phylgreen + Tradebor + Calitech	1 ml + 0.5 ml + 1 ml	200	Foliar application
5	Wallnut	Humistar + Inatke	2 ml + 0.25 ml	400	Soil Drenching
6	Wallnut	Amifol K + Maxflow Mg	2.5 ml + 0.5 ml	200	Foliar application
7	Fruit development	Amifol K + Maxflow Mg	2.5 ml + 0.5 ml	200	Foliar application
8	20 Days before maturity	Amifol K	2.5 ml	200	Foliar application

Control :

- ✓ Standard farmer practice

- Dose of water applied per ha:
 - Soil Drenching: 2000 L /ha
 - Foliar 2, 3, 4: 2500 L /ha
 - Foliar 6, 7: 3000 L /ha

Trial Set Up – Soil Application

- Humistar 400 ml + Intake 50 ml was mixed in 200 L barrel (Humistar 4L + Intake 0.5L /ha)
- Then applied 20 L solution per plant, into the ring made in the shadow area of the plant.
- Farmer applies FYM & fertilizers in the same area.



Preliminary Result: Tradebor, Calitech & phylgreen foliar application



Energy to the plant with
Trafos Cu + Tradebor +
Phylgreen200 on tight
cluster stage.

For vigorous flowering
Phylgreen200 + Tradebor +
Calitech was done on pink bud
stage.

Vibrant flower ready to
set. No Application in
flowering stage to avoid
russett

Results:

- **Uniform bud formation & flower initiation with good ration of flowers & leaf on treated plants**

Preliminary Result: Tradebor, Calitech & Phylgreen200 foliar application



Foliar applications of Phylgreen200, Tradebor & Calitech after petal fall stage is useful for putting more Calcium in fruits.

Results:

Observations taken after 10 days of application has given the perfect ***Elongated Shape*** to apples.

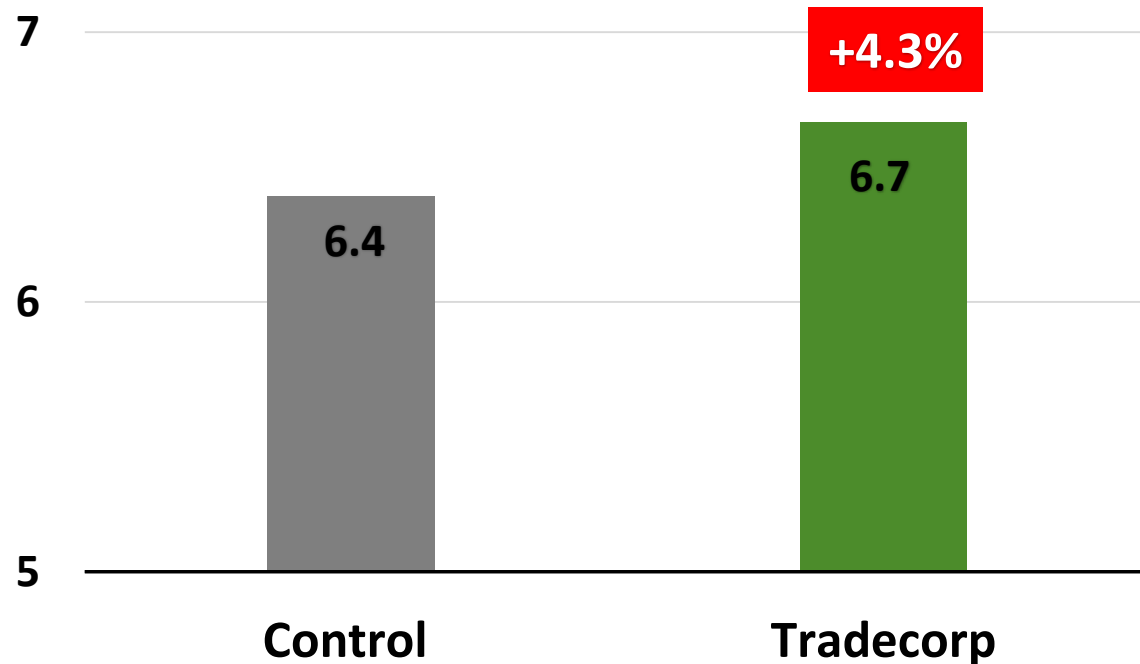
Preliminary Result: Amifol K & Maxflow Mg



- At walnut stage applied the first application of Amifol K & maxflow Mg.
- It has helped in increasing the size of fruit & also bring uniformity in the fruit size.

Results: Increase in fruit diameter

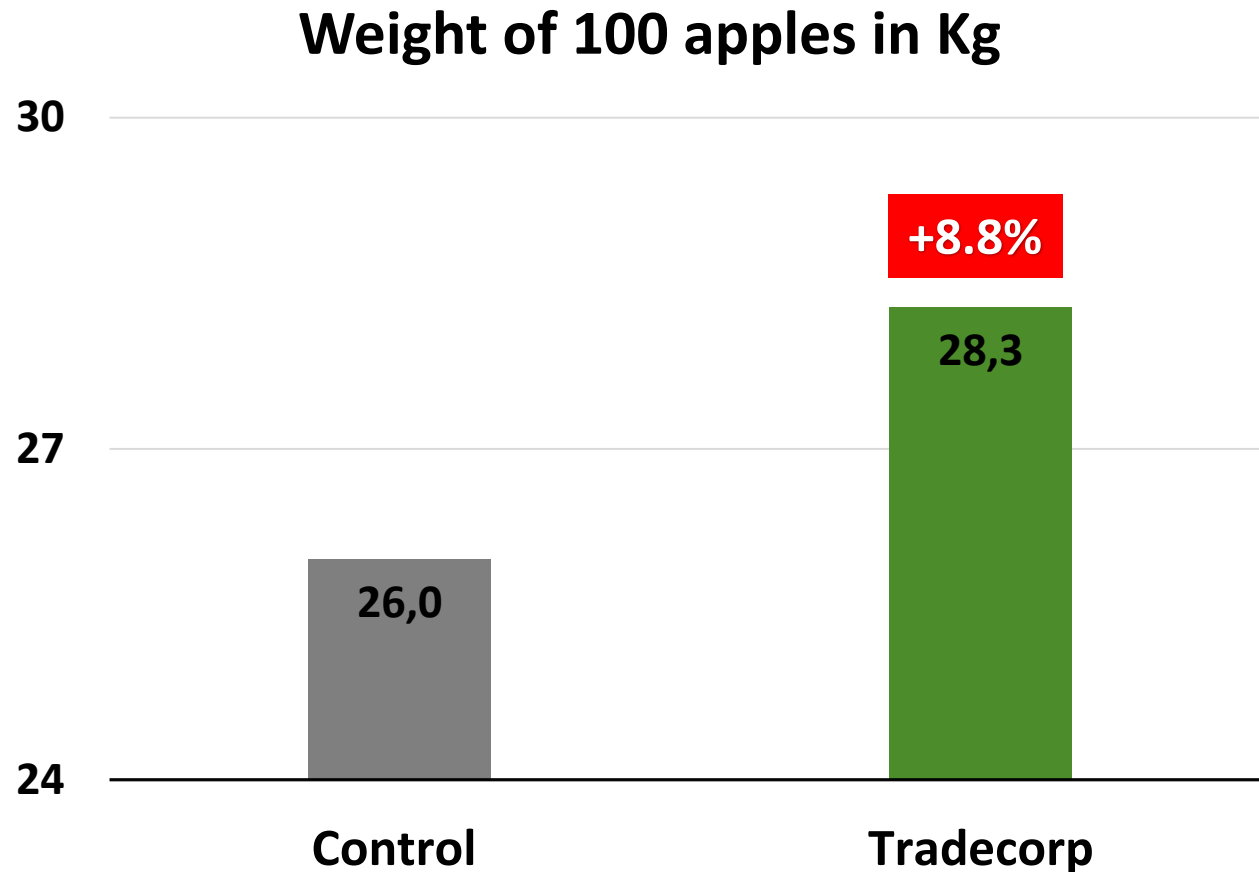
10 Fruit Diameter in cm



Observations after 15 days of foliar application of Amifol K + Maxflow Mg at Walnut Stage

- With the 1st application of **Amifol K + Maxflow Mg**, the fruit size in diameter has increase by to **+4.3%** v/s Control
- **Fruit Size** was *More Uniform* on treated plants than Control

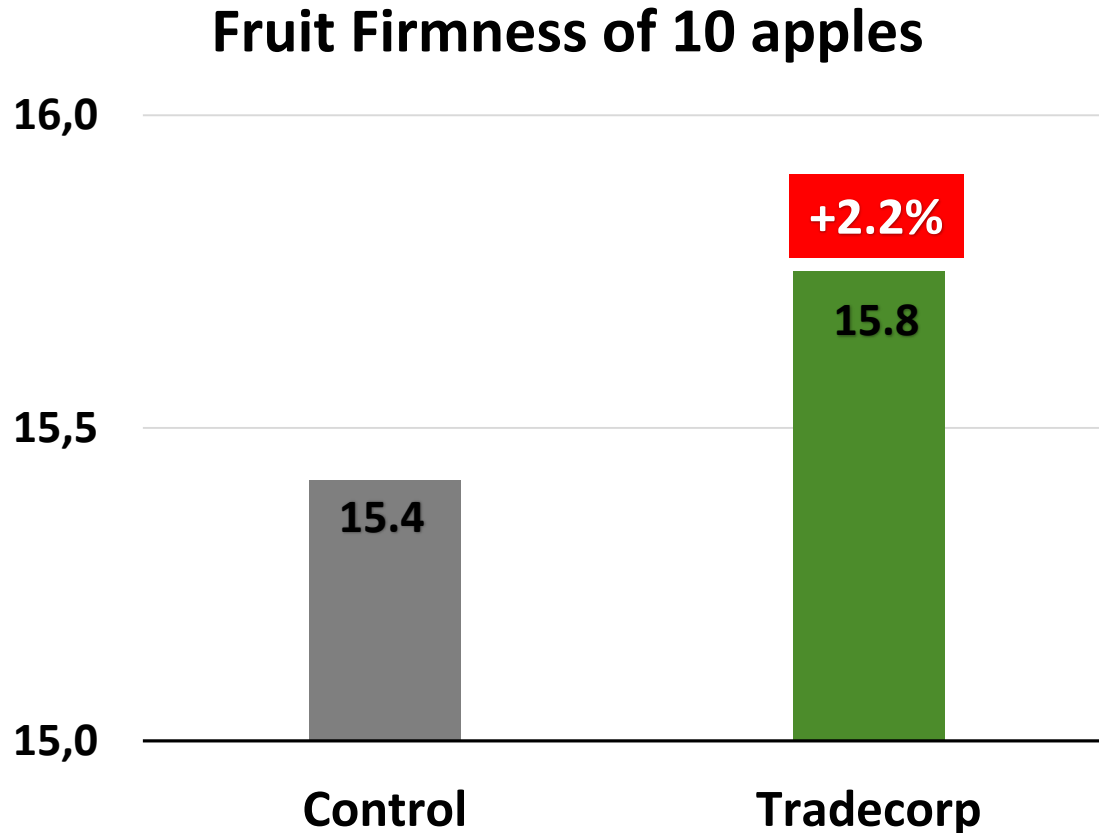
Results: Increase in Fruit Weight



Observations taken at the time of Harvesting:

- With 3 applications of **Amifol K + Maxflow Mg** at **Walnut, Fruit Development & Amifol K alone** at 20 days before harvest
- **Tradecorp** practice has given increase in **Weight by +8.7%**

Results: Fruit Firmness



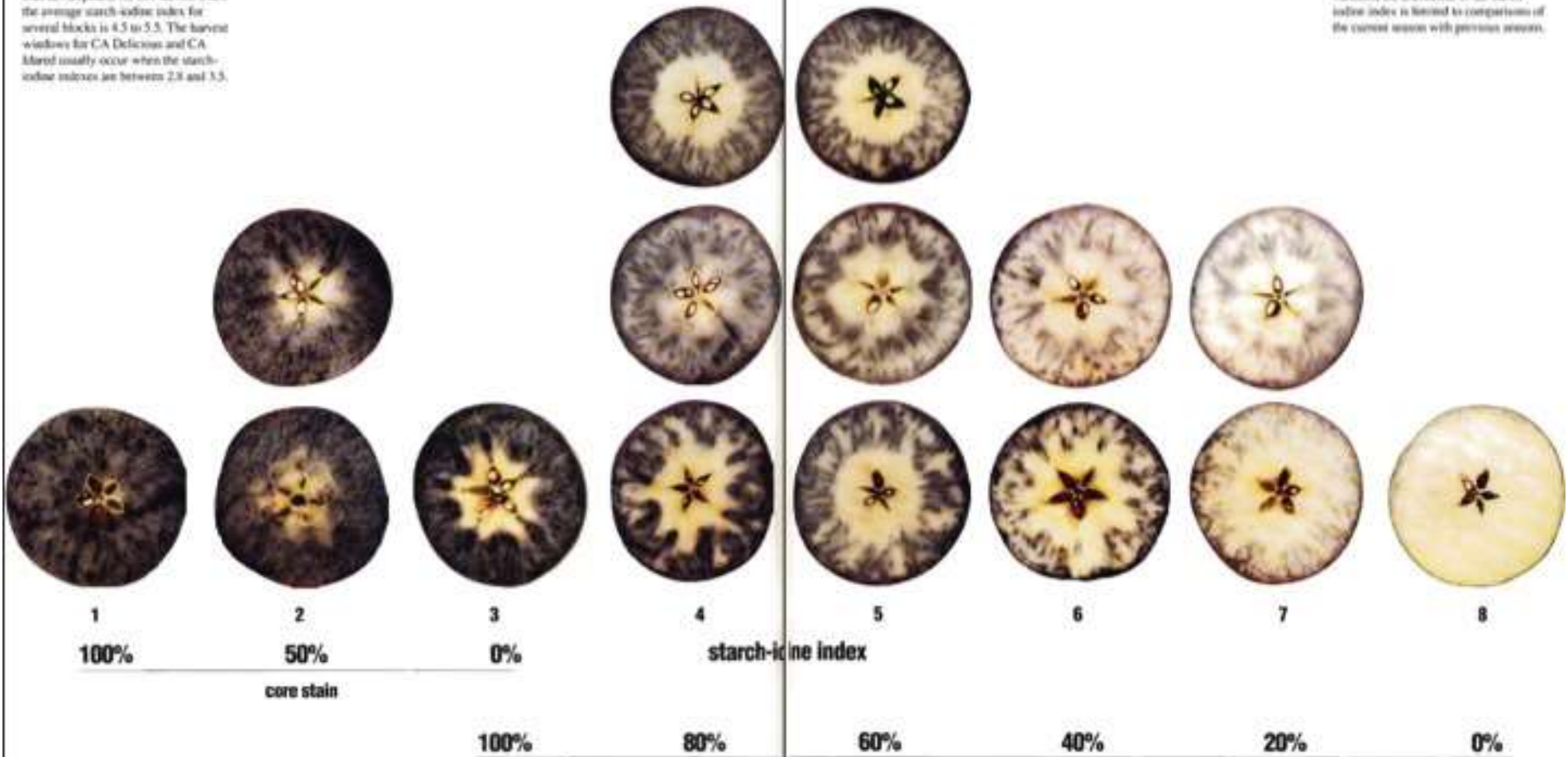
Observations taken at the time of Harvesting:

- **Fruits Firmness** was **+2.2%** more than Control
- Fruits were more **Crispy & Crunchy**

Cornell Starch-Iodine Index

McIntosh should be picked for CA storage as the average starch staining in flesh tissue changes from 60 and 40 percent, i.e., at starch iodine index 5 and 6. Empire are usually at the best stage of fruit development for CA harvest when the average starch-iodine index for several blocks is 4.5 to 5.5. The harvest windows for CA Delicious and CA Idared usually occur when the starch-iodine indexes are between 2.8 and 3.5.

Starch iodine indexes for the harvest windows of other varieties have not yet been determined. If you do not have these four varieties to estimate the harvest windows for intervening varieties, the usefulness of the starch-iodine index is limited to comparisons of the current season with previous seasons.



Unripe / Low Sugar

Ripe / High Sugar

Blanpied, G.D. and S.J. Silsby. 1992, Predicting Harvest Date Windows for Apples. Cornell Cooperative Extension. Informational Bulletin 221.



Results: Iodine Starch Test at Harvest



Control

Iodine Starch Test

- Little Sugar All Starch
- More Blue & Black stains = More Starch



Tradecorp Program

Iodine Starch Test

- Good sugar level
- No Blue & Black stains = Low Starch / High Sugar

Note also Firmness
Penetrometer
Marks

Conclusion



Tradecorp Program:

- Increase in **Fruit Diameter** by **4.3%**, after first application of Amifol K
-
- More **Uniform & Elongated Fruits**
- Increase in **Fruit Weight** by **+8.8%**
- Increase in **Firmness** by **+2.2%**, however fruits were more crunchy.
- Higher **Sugar Levels & Ripeness** compared to the Control

