



VIETNAMESE CROP NUTRITION PROGRAM

TRIAL PROTOCOLS
2019–2020

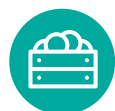
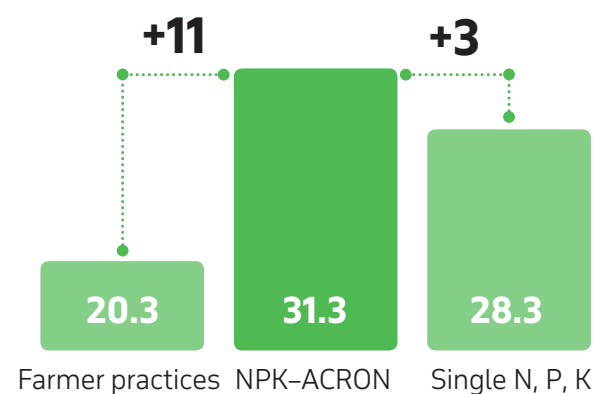




BITTER MELON



YIELD [t/ha]



WITH NPK-ACRON YOU WILL GET **HIGHER YIELDS**

+11 t/ha comparing to farmer practices

+3 t/ha comparing to Single N, P, K

The research was carried out in cooperation with Soils and Fertilizer Research Institute (SFRI) of the Academy of Agricultural Sciences in Vietnam



PLANTING TIME

Bitter melon can be planted year-round, however the most suitable is winter-spring crop season from September to October, and summer-autumn season from August to September.



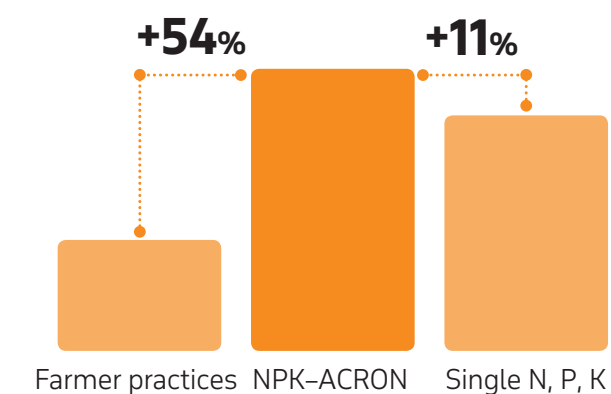
NUTRITION REQUIREMENTS

In order to reach the productivity of 30–40 t/ha, bitter melon requires the amount of fertilizer per hectare as follows: Manure 8–10 t/ha, combined with mineral fertilizer at dosage of 120–150 kg N + 90–100 kg P₂O₅ + 100–130 kg K₂O.

FERTILIZER APPLICATION FOR BITTER MELON [per ha]

TYPE OF FERTILIZER	BASAL APPLICATION	AFTER 15-20 DAYS	AFTER 35-40 DAYS	AFTER 55-60 DAYS	AFTER 70-80 DAYS
Organic fertilizers	8–10 t	–	–	–	–
NPK 19-16-8-TE	250 kg	–	–	–	–
Super phosphate	120 kg	–	–	–	–
NPK 18-6-18-TE	–	120 kg	–	–	–
NPK 18-6-18-TE	–	–	150 kg	–	–
NPK 19-9-19-TE	–	–	–	120 kg	–
KCl 60%	–	–	–	10 kg	–
NPK 19-9-19-TE	–	–	–	–	120 kg
KCl 60%	–	–	–	–	10 kg

REVENUE



WITH NPK-ACRON YOU WILL INCREASE YOUR **REVENUE**

+54% comparing to farmer practices

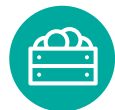
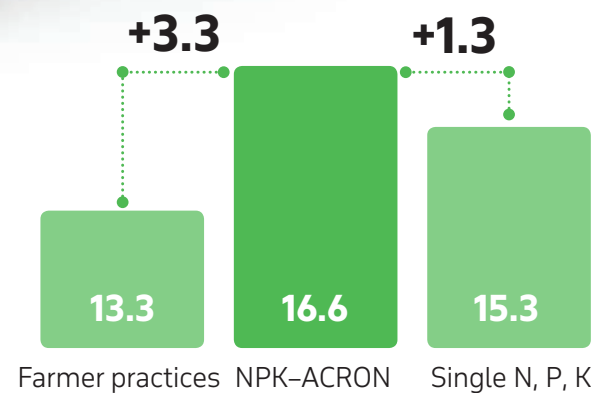
+11% comparing to Single N, P, K

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CHILLY



YIELD [t/ha]



WITH NPK-ACRON YOU WILL GET **HIGHER YIELDS**

+3.3 t/ha comparing to farmer practices

+1.3 t/ha comparing to Single N, P, K

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PLANTING TIME

Chilly can be grown all year round, but usually focus on 3 main crop seasons:

- winter–autumn crop from September to October,
- spring–winter crop from November to December
- spring–summer crop from February to March.



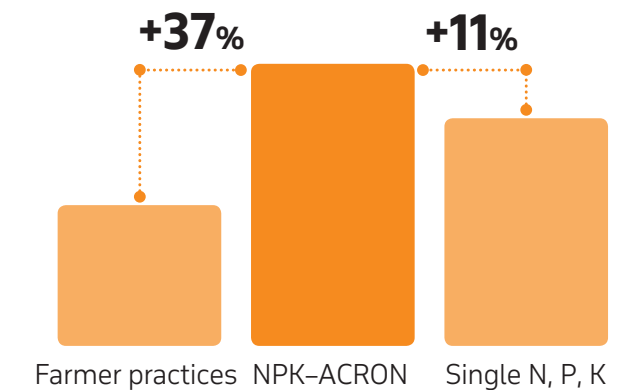
NUTRITION REQUIREMENTS

To reach the yield of 25–30 t/ha, chilly plant needs amount of fertilizer in 1 ha as follows: Manure 8–10 t/ha, combined with mineral fertilizer at dosage of 150–180 kg N + 100–150 kg P₂O₅ + 150–180 kg K₂O.

FERTILIZER APPLICATION FOR CHILLY [per ha]

TYPE OF FERTILIZER	BASAL APPLICATION	AFTER 7-10 DAYS	AFTER 20-25 DAYS	AFTER 50-60 DAYS	AFTER 1 ST HARVESTING
Organic fertilizers	8–10 t	–	–	–	–
NPK 16–16–16-TE	500 kg	–	–	–	–
NPK 25–9–9-TE	–	200 kg	–	–	–
NPK 18–6–18-TE KCl 60%	–	–	100 kg 25 kg	–	–
NPK 18–6–18-TE KCl 60%	–	–	–	80 kg 25 kg	–
NPK 18–6–18-TE	–	–	–	–	100 kg

NET RETURN



WITH NPK-ACRON YOU WILL INCREASE YOUR **PROFIT**

+37% comparing to farmer practices

+11% comparing to Single N, P, K

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CUCUMBER



PLANTING TIME

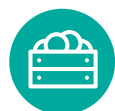
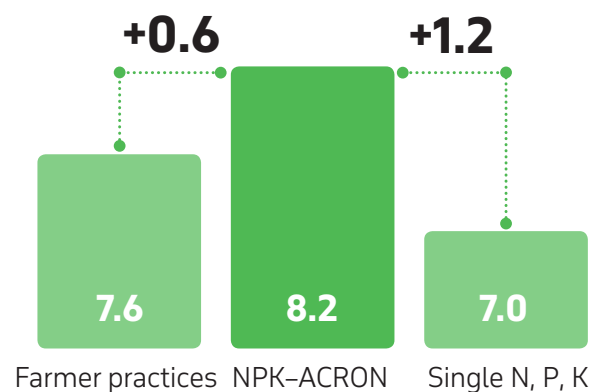
From January to February every year, in the Mekong Delta provinces from September to October every year.



NUTRITION REQUIREMENTS

To achieve a yield of 20–25 t/ha, cucumber requires a fertilizer of 1 ha as follows: Manure 5–7 t/ha, combined with mineral fertilizers 100–125 kg N + 70–80 kg P₂O₅ + 120–150 kg K₂O.

YIELD [t/ha]



WITH NPK-ACRON YOU WILL GET **HIGHER YIELDS**

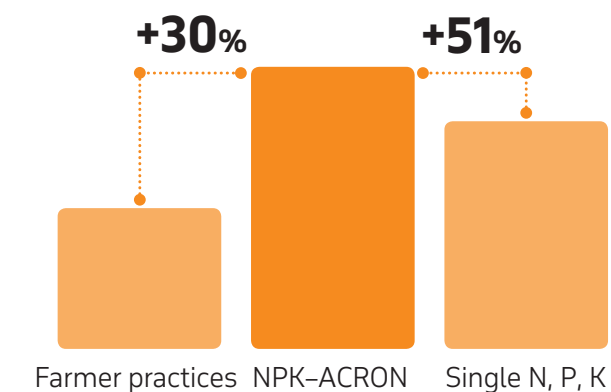
+0.6 t/ha comparing to farmer practices

+1.2 t/ha comparing to Single N, P, K

FERTILIZER APPLICATION FOR CUCUMBER [per ha]

TYPE OF FERTILIZERS	BASAL APPLICATION	AFTER 15-20 DAYS	AFTER 40-60 DAYS	AFTER THE 1 ST HARVESTING DAYS
Organic fertilizers	15–20 t	–	–	–
NPK 16–16–16-TE	200 kg	–	–	–
Urea 46%	–	25 kg	–	–
NPK 19–16–8-TE	–	–	220 kg	–
KCl 60%	–	–	25 kg	–
NPK 18–6–18-TE	–	–	–	200 kg

NET RETURN



WITH NPK-ACRON YOU WILL INCREASE YOUR **PROFIT**

+30% comparing to farmer practices

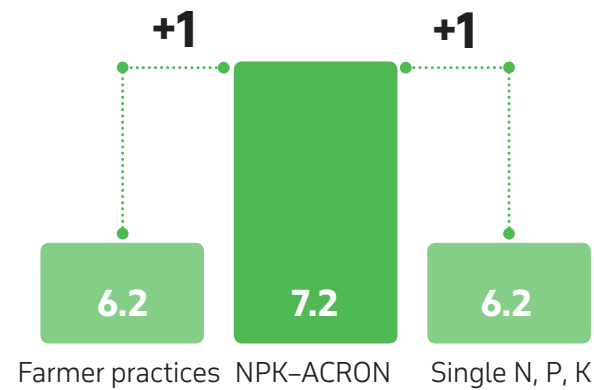
+51% comparing to Single N, P, K



YARD LONG BEAN (SNAKE BEAN)



YIELD [t/ha]



WITH NPK-ACRON YOU WILL GET **HIGHER YIELDS**

+1 t/ha comparing to farmer practices

+1 t/ha comparing to Single N, P, K

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PLANTING TIME

- spring crop: from March to April
- summer crop: from May to June,
- autumn crop: from July to August



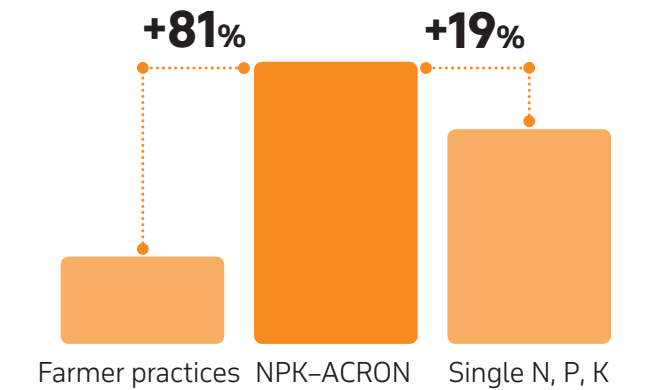
NUTRITION REQUIREMENTS

To reach the productivity of 15–20 t/ha, crop requires the amount of fertilizer for 1 ha as follows: Manure 15–20 t/ha, combined with mineral fertilizer 90–100 kg N + 60–80 kg P₂O₅ + 100–125 kg K₂O.

FERTILIZER APPLICATION FOR YARD LONG BEAN [per ha]

TYPE OF FERTILIZERS	BASAL APPLICATION	AFTER 10-15 DAYS	AFTER 30-35 DAYS	AFTER 50 DAYS
Organic fertilizers	15–20 t	–	–	–
NPK 16–16–16-TE	150 kg	–	–	–
Urea 46%	–	50 kg	–	–
NPK 25–9–9-TE	–	–	100 kg	–
KCl 60%	–	–	40 kg	–
NPK 16–16–16-TE	–	–	–	200 kg
KCl 60%	–	–	–	20 kg

NET RETURN



WITH NPK-ACRON YOU WILL INCREASE YOUR **PROFIT**

+81% comparing to farmer practices

+19% comparing to Single N, P, K

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SQUASH



PLANTING TIME

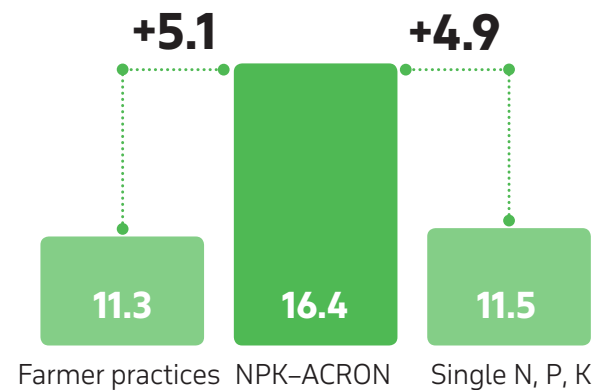
- spring–summer crop season: from January to February.
- autumn–winter crop season: from August to October.



NUTRITION REQUIREMENTS

In order to reach the productivity of 30–40 t/ha, squash needs fertilizer for 1 ha as follows:
Manure 8–10 t/ha, combined with mineral fertilizer
125–150 kg N + 60–70 kg P₂O₅ + 160–180 kg K₂O.

YIELD [t/ha]



WITH NPK-ACRON YOU WILL GET **HIGHER YIELDS**

+5.1 t/ha comparing to farmer practices

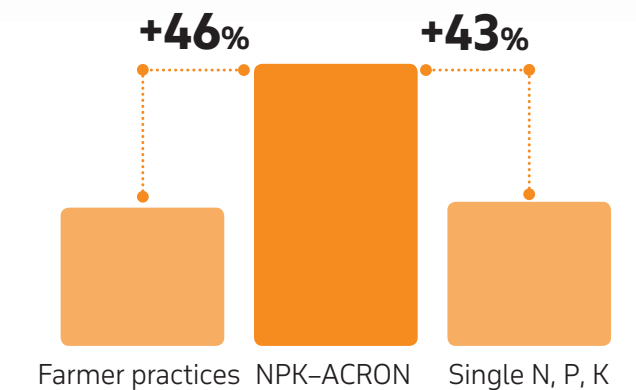
+4.9 t/ha comparing to Single N, P, K

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FERTILIZER APPLICATION FOR SQUASH [per ha]

TYPE OF FERTILIZER	BASAL APPLICATION	AFTER 15-20 DAYS	AFTER 35-45 DAYS	AFTER 60-90 DAYS
Organic fertilizers	8–10 t	–	–	–
NPK 19-16-8-TE	200 kg	–	–	–
NPK 18-6-18-TE		120 kg		
Urea 46%	–	10 kg		–
KCl 60%		10 kg		
NPK 19-9-19 -TE			150 kg	
KCl 60%			30 kg	
NPK 18-6-18 -TE				150 kg
KCl 60%				10 kg

REVENUE



WITH NPK-ACRON YOU WILL INCREASE YOUR **REVENUE**

+46% comparing to farmer practices

+43% comparing to Single N, P, K

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CELERY



PLANTING TIME

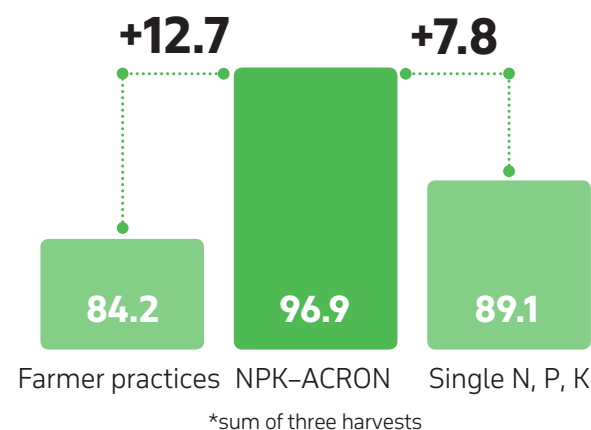
If water irrigation available, celery can be grown on any season of the year.



NUTRITION REQUIREMENTS

To achieve a yield of 15–20 t/ha, celery requires a fertilizer of 1 ha as follows: Manure 4–5 t/ha, combined with mineral fertilizer 70–80 kg N + 50–60 kg P₂O₅ + 30–40 K₂O.

YIELD* [t/ha]



WITH NPK-ACRON YOU WILL GET **HIGHER YIELDS**

+12.7 t/ha comparing to farmer practices

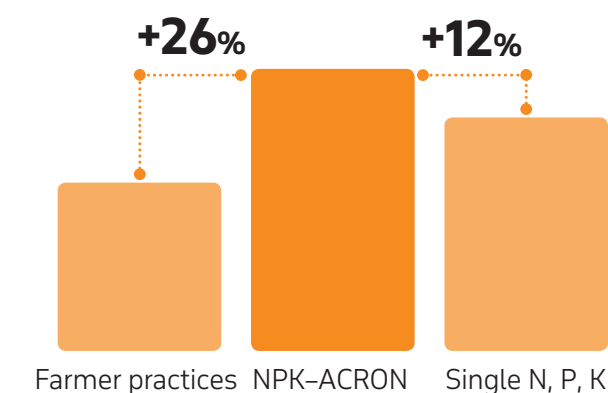
+7.8 t/ha comparing to Single N, P, K

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FERTILIZER APPLICATION FOR CELERY [per ha]

TYPE OF FERTILIZERS	BASAL APPLICATION	AFTER 7-10 DAYS	AFTER 30 DAYS	AFTER 40 DAYS
Organic fertilizers	4–5 t	–	–	–
NPK 19-16-8-TE	80 kg	–	–	–
Super phosphate	60 kg	–	–	–
NPK 19-16-8-TE	–	80 kg	–	–
NPK 18-6-18-TE	–	–	120 kg	–
NPK 25-9-9-TE	–	–	–	70 kg

NET RETURN



WITH NPK-ACRON YOU WILL INCREASE YOUR **PROFIT**

+26% comparing to farmer practices

+12% comparing to Single N, P, K

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ONION



PLANTING TIME

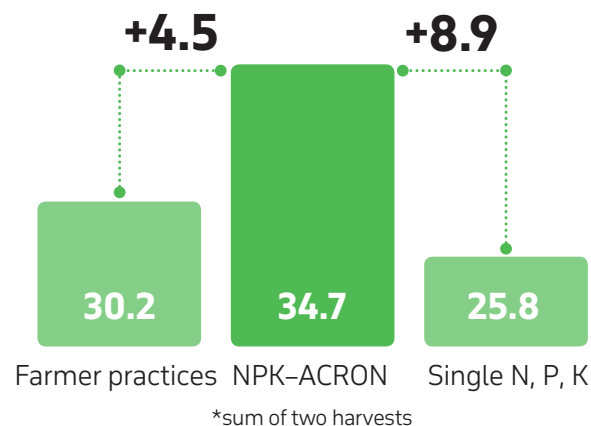
- Winter crop: from September to October,
- Winter-spring crop: from February to March,
- Autumn crop: from July to August.



NUTRITION REQUIREMENTS

No achieve a yield of 10–15 t/ha, the demand for fertilizer is 1 ha as follows: Manure 5–7 t/ha, combined with mineral fertilizer at dose of 100–120 kg N + 40–50 kg P₂O₅ + 100–120 K₂O.

YIELD [t/ha]



WITH NPK-ACRON YOU WILL GET **HIGHER YIELDS**

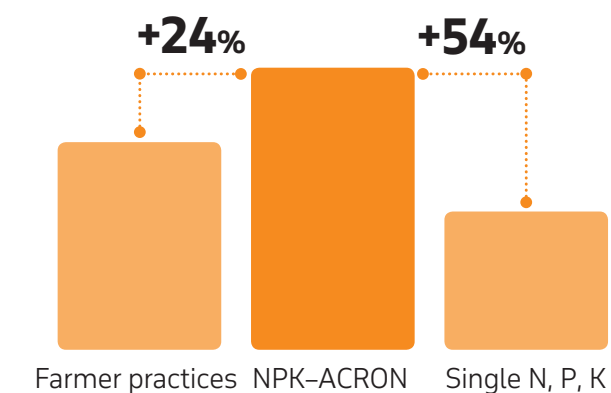
+4.5 t/ha comparing to farmer practices

+8.9 t/ha comparing to Single N, P, K

FERTILIZER APPLICATION FOR ONION [per ha]

TYPE OF FERTILIZERS	BASAL APPLICATION	AFTER 15-20 DAYS	AFTER 40-50 DAYS	AFTER 80-90 DAYS
Organic fertilizers	15–20 t	–	–	–
NPK 16-16-16-TE	100 kg	–	–	–
UREA 46%	–	30 kg	–	–
NPK 19-9-19-TE	–	–	250 kg	–
NPK 18-6-18-TE	–	–	–	250 kg
KCl 60%	–	–	–	20 kg

NET RETURN



WITH NPK-ACRON YOU WILL INCREASE YOUR **PROFIT**

+24% comparing to farmer practices

+54% comparing to Single N, P, K



CABBAGE



PLANTING TIME

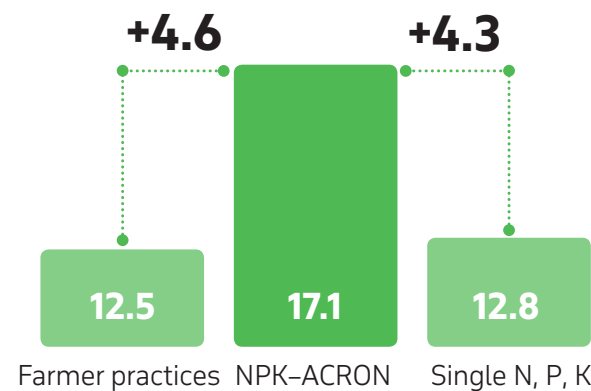
- Early crop: from June to July;
- Main crop: from September to October;
- Late crop: from November to December.



NUTRITION REQUIREMENTS

To achieve a yield of 20–25 t/ha, cabbage requires a fertilizer for 1 ha as follows: Manure 10–12 t/ha, combined with mineral fertilizer at dose of 160–190 kg N + 80–90 kg P₂O₅ + 100–120 K₂O.

YIELD [t/ha]



WITH NPK-ACRON YOU WILL GET **HIGHER YIELDS**

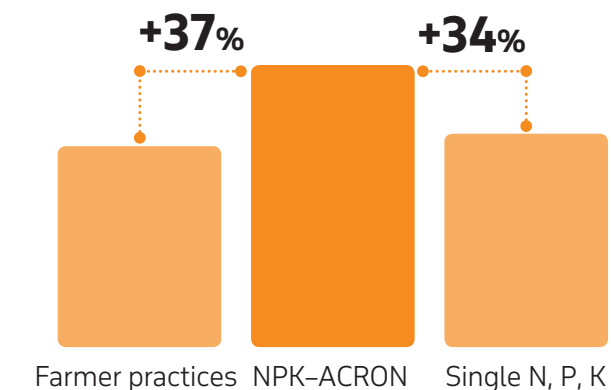
+4.6 t/ha comparing to farmer practices

+4.3 t/ha comparing to Single N, P, K

FERTILIZER APPLICATION FOR CABBAGE [per ha]

TYPE OF FERTILIZERS	BEFORE PLANTING	AFTER 7-12 DAYS	AFTER 30-45 DAYS	AFTER 75-80 DAYS
Organic fertilizers	10–12 t	–	–	–
NPK 16–16–16-TE	300 kg	–	–	–
NPK 25–9–9-TE	–	150 kg	–	–
UREA 46%	–	60 kg	–	–
NPK 19–9–19-TE	–	–	200 kg	–
NPK 18–6–18-TE	–	–	–	110 kg

REVENUE



WITH NPK-ACRON YOU WILL INCREASE YOUR **PROFIT**

+37% comparing to farmer practices

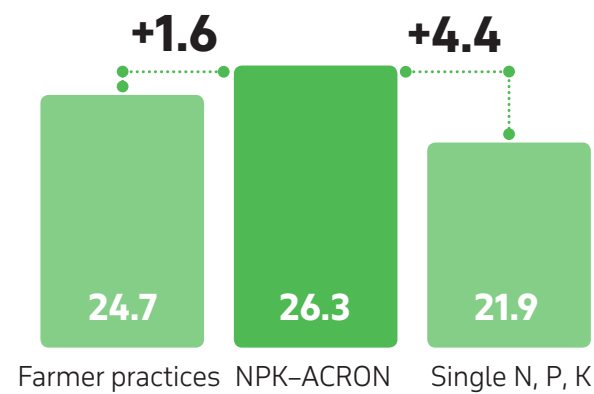
+34% comparing to Single N, P, K



CHINESE BROCCOLI



YIELD [t/ha]



WITH NPK-ACRON YOU WILL GET **HIGHER YIELDS**

+1.6 t/ha comparing to farmer practices

+4.4 t/ha comparing to Single N, P, K



PLANTING TIME

Under conditions of water resources available and regular irrigation, broccoli can be grown all year round, most suitable from July to January next year.



NUTRITION REQUIREMENTS

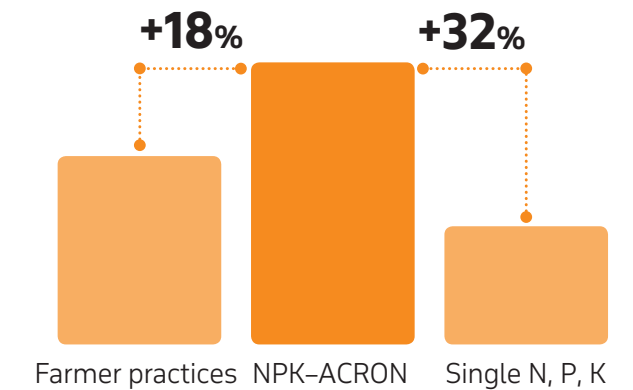
To reach the productivity of 15–20 t/ha, required amount of fertilizer for 1 ha as follows:

Manure 15–20 t/ha, combined with mineral fertilizer 60–80 kg N + 30–40 kg P₂O₅ + 40–50 K₂O.

FERTILIZER APPLICATION FOR CHINESE BROCCOLI [per ha]

TYPE OF FERTILIZERS	BASAL APPLICATION	AFTER 10-15 DAYS	AFTER 25-30 DAYS
Organic fertilizers	15–20 t	–	–
NPK 16-16-16-TE	80 kg	–	–
NPK 19-16-8-TE		120 kg	
UREA 46%	–	40 kg	–
KCl 60%		20 kg	
NPK 25-9-9-TE			100 kg
UREA 46%	–	–	25 kg
KCl 60%			10 kg

NET RETURN



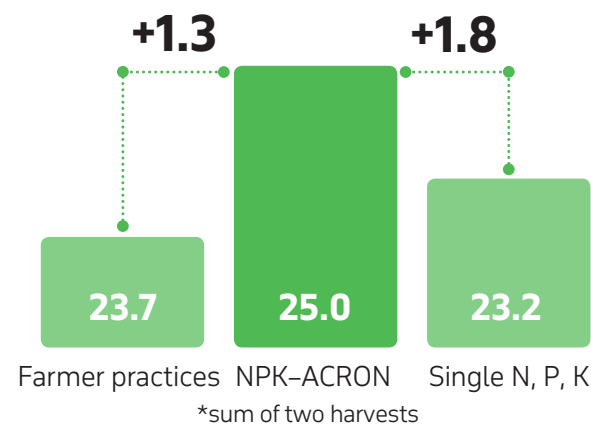
WITH NPK-ACRON YOU WILL INCREASE YOUR **PROFIT**

+18% comparing to farmer practices

+32% comparing to Single N, P, K



YIELD [t/ha]



WITH NPK-ACRON YOU WILL GET **HIGHER YIELDS**

+1.3 t/ha comparing to farmer practices

+1.8 t/ha comparing to Single N, P, K

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DRAGON FRUIT TREE



PLANTING TIME

Dragon fruit can be grown all year round, but two seasons are common: main season is from April to August every year, Second season – be planted from September current year to April next year.



NUTRITION REQUIREMENTS

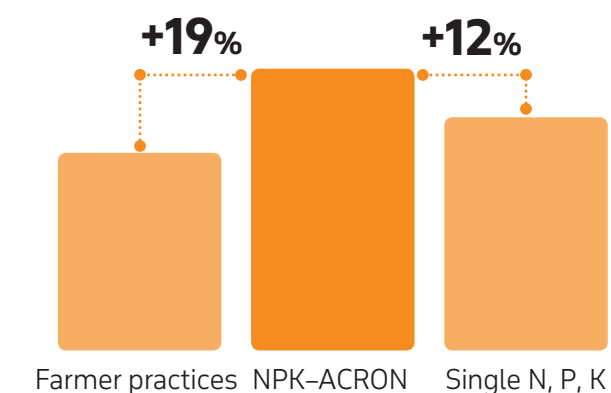
At the basic construction stage [age 1-2] dragon fruit needs less nutrition, but with growth and development the amount of fertilizer for dragon fruit increased significantly.

FERTILIZER APPLICATION FOR DRAGON FRUIT TREE [per ha]

TREE AGE, year	AFTER HARVEST	AT FLOWERING	FRUIT SETTING
Fertilizer/pillar			
≥5	Organic fertilizer: 8-10 kg NPK 16-16-16: 450 g	NPK 25-9-9-TE: 250 g	NPK 25-9-9: 250 g
TREE AGE, year	YOUNG FRUIT	BEFORE HARVEST 20-25 DAYS	
Fertilizer/pillar			
≥5	NPK 18-6-18-TE: 200 g KCl [60%]: 80 g	NPK 18-6-18-TE: 100 g KCl [60%]: 80 g	



NET RETURN

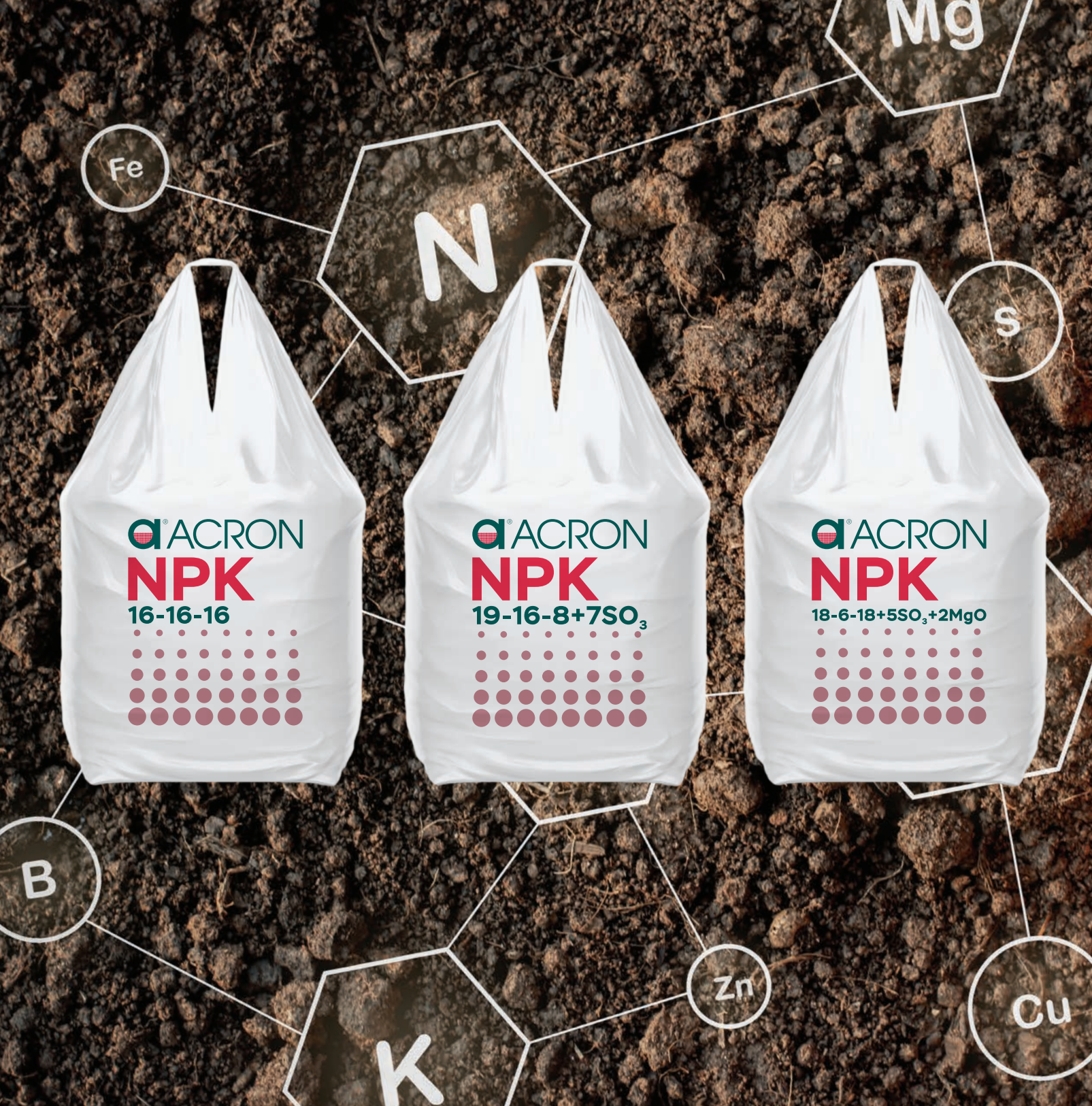






WITH NPK-ACRON YOU WILL INCREASE YOUR **PROFIT**

+19% comparing to farmer practices

+12% comparing to Single N, P, K

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