



WHEN YOU KNOW, YOU KNOW

VANTACOR® INSECTICIDE
PRODUCT GUIDE

VANTACOR®
INSECTICIDE



Vantacor® is a highly concentrated insect control formulation of Rynaxypyr® active for Chickpea crops and pulses. It is fast acting, long lasting and highly effective at delivering targeted control for Lepidopteran pests while being convenient, sustainable, and safe.

Realise a broader protection for your pulse crops.

Dealing with a wide range of threats against your crops just got easier with Vantacor® insecticide.

With high efficacy against larvae and long-lasting activity, Vantacor® works fast to protect against *Heliothis* and the build-up of targeted pest populations. When applied to all pulse crops, Vantacor® provides consistent and robust control.

Vantacor® is just as effective for Cotton and offers added protection against a range of insecticide resistant Lepidoptera pests.

For further information please visit www.fmccrop.com.au or contact your local representative

Provide Outstanding & Extended Crop Protection

- High insecticidal potency delivering reliable and consistent control
- Rapid cessation of feeding providing almost immediate crop protection
- Long residual activity for long-lasting crop protection
- Translaminar activity and rainfastness for crop protection under a range of growing conditions
- Favourable re-entry interval provides a large margin of safety to workers
- Novel mode of action in a range of Winter and Summer Pulse crops for Insect Resistance Management
- Low toxicity to most beneficial arthropods, giving an excellent fit in Integrated Pest Management systems

Labeled Pests

When applied early in pest infestation cycle, Vantacor® helps to keep pest populations below damaging levels.

Cotton	Cotton bollworm (<i>Helicoverpa armigera</i>) Native budworm (<i>Helicoverpa punctigera</i>) Cluster caterpillar (<i>Spodoptera litura</i>) Northern rough bollworm (<i>Earias vittella</i>) Rough bollworm (<i>Earias huegeliana</i>)
Winter pulse crops, including; Chickpeas, Faba/Broad bean, Field pea, Lentil, Lupin, Vetch	Cotton bollworm (<i>Helicoverpa armigera</i>) Native budworm (<i>Helicoverpa punctigera</i>)
Summer pulse crops, including; Azuki/Adzuki bean, Cow pea, Mung beans, Navy bean, Pigeon and Soybeans	Bean podborer (<i>Maruca vitrata</i>) Cotton bollworm (<i>Helicoverpa armigera</i>) Native budworm (<i>Helicoverpa punctigera</i>) Soybean looper (<i>Thysanoplusia orichalcea</i>) Bean looper (<i>Mocis alterna</i>) Irrorated tabby (<i>Anticarsia irrorata</i>)

Broad Spectrum Control of Chewing Pests

The broad spectrum control of Vantacor® is a critical addition to the management of highly prolific and difficult-to-control pests.

How it Works

Symptoms of control from Vantacor® insecticide

- Rapid feeding cessation.
- General lethargy
- Regurgitation.
- Muscle paralysis.
- Severe growth stunting.
- Death within 3 - 5 days in the field.



Vantacor® symptoms on *Helicoverpa* spp. 3 DAT from chickpea field trial.

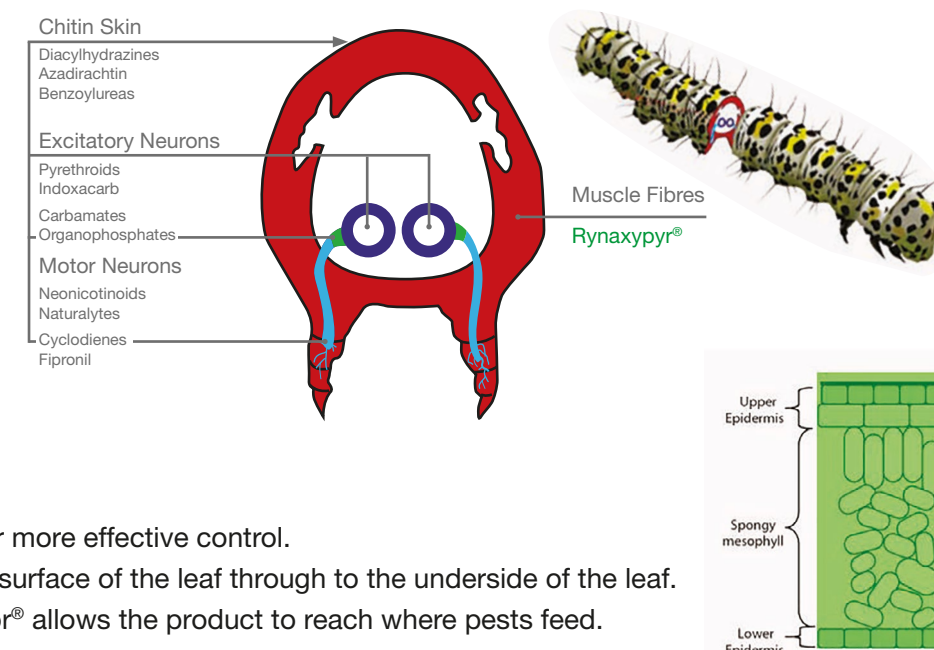
Photo: G. Cornwell, FMC, Au

Mode of Action

The basis for rapid cessation of feeding and plant protection.

Vantacor® acts on the cells in the muscle, not the nervous system – a new mode of action for key pulse crops.

Vantacor® impacts insect behaviour by impairing the muscle function.

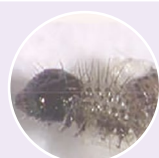



Translaminar Activity

- Vantacor® is highly translaminar for more effective control.
- Vantacor® moves from the treated surface of the leaf through to the underside of the leaf.
- The translaminar action of Vantacor® allows the product to reach where pests feed.

Dual Action on Larvae

Vantacor® is primarily a larvicidal/ovi-larvicidal compound on *Helicoverpa* spp.

Ovi-larvicidal effect of Vantacor® on eggs of <i>Heliothis virescens</i>	Larvicidal effect of Vantacor® on larvae of <i>Helicoverpa punctigera</i>
 <p>Ovi-larvicidal activity of Vantacor® at 7.5g ai/100 L.</p> <p>Larvae emerging from eggs, are controlled via ingestion of Vantacor® from residues on the surface of the egg membrane.</p>	 <p>Larvicidal activity on all larval stages.</p> <p>Photos: M. Lima, Paulinia, G. Cornwell.</p>

Insecticide Resistance Management with Vantacor®

The development of resistance is a real concern for the agricultural industry and FMC recommends using Vantacor® insecticide in a responsible manner.

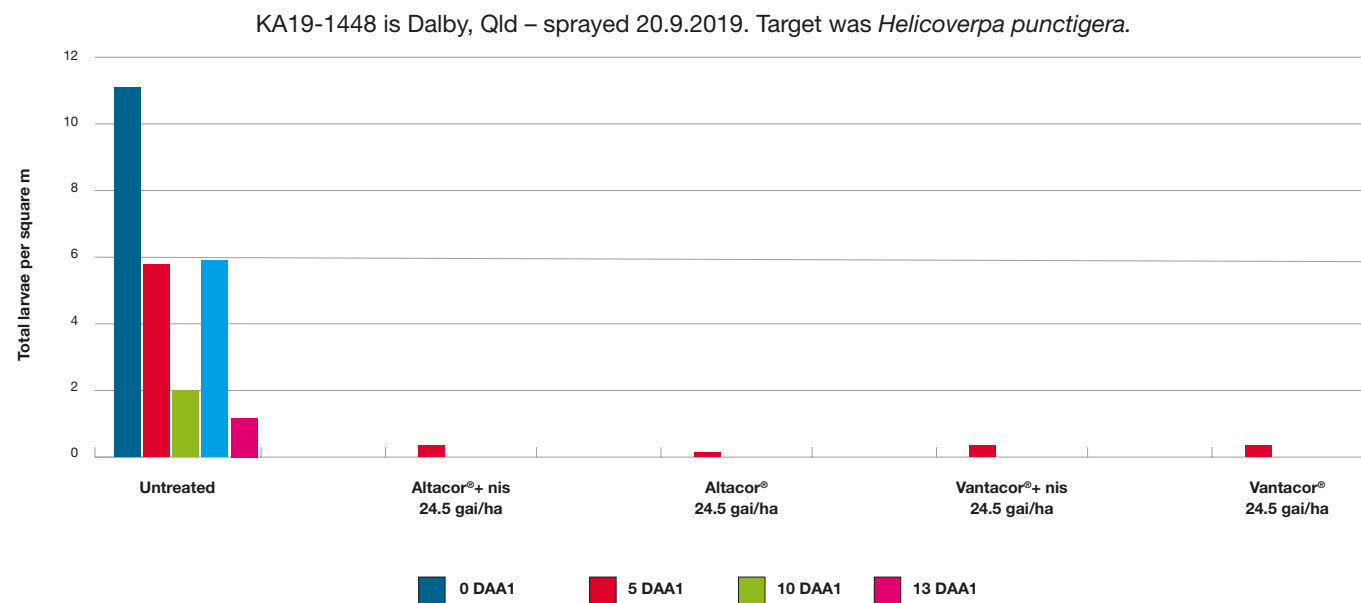
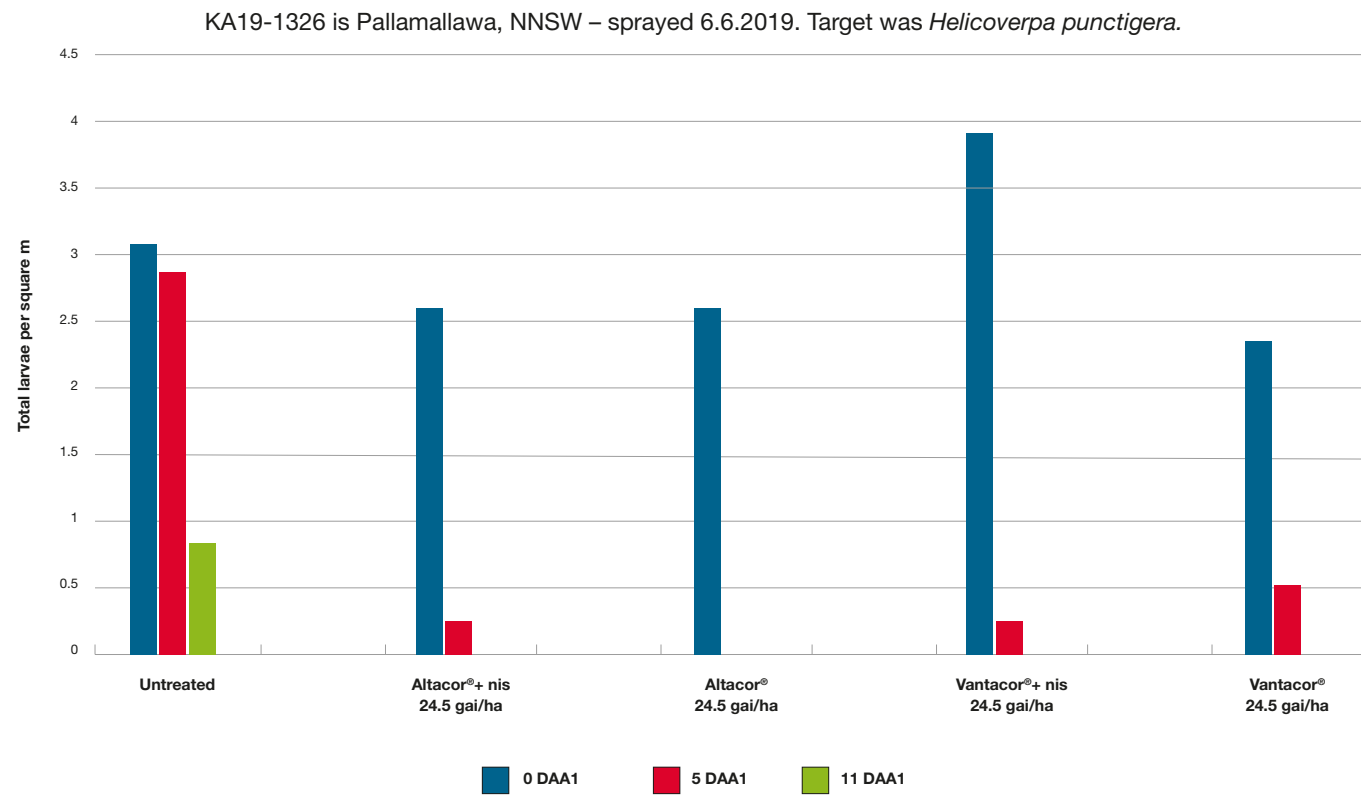
- Apply Vantacor® using a “window” approach to avoid exposure of consecutive insect pest generations to the same mode of action.
- Successive applications of Vantacor® are acceptable

if they are used to treat a single insect generation. Apply a maximum of two applications of Vantacor® per pulse crop and a maximum of three applications in Cotton.

- FMC supports industry monitoring and ongoing review of resistance strategies.
- Vantacor® is a Group 28 insecticide.

Effective & Consistent Control in Chickpea

Unique mode of action, consistent and robust control, IPM (Integrated Pest Management) and longer residual. Translaminar action by Vantacor® contributes to rainfastness and residual.



Vantacor® Insecticide for Chickpeas

When to protect your Chickpea crops

Crop Phenology	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
Planting		█	█	█					
Harvest								█	█
Pests									
Lepidoptera (<i>chewing pests</i>)									
Native budworm (<i>Helicoverpa punctigera</i>)						█	█	█	
Cotton bollworm (<i>Helicoverpa armigera</i>)						█	█	█	
Insecticide Treatment									
Vantacor® Insecticide							█	█	█

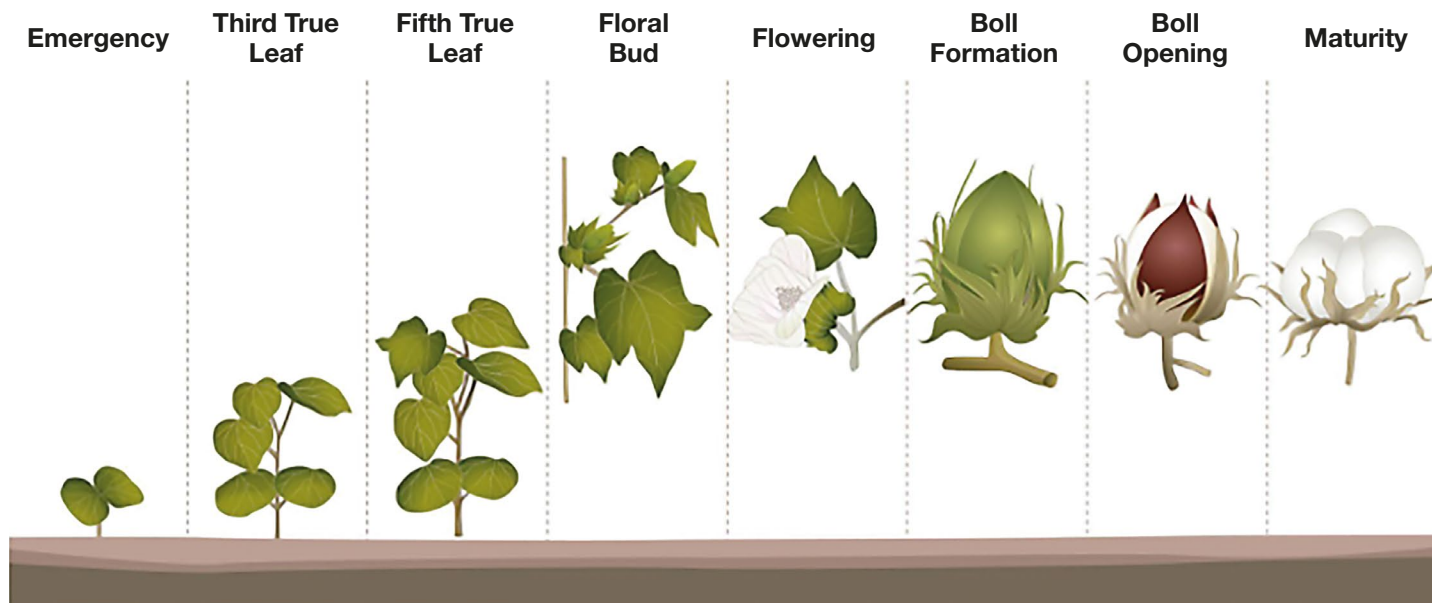


Vantacor® Insecticide for Cotton

Target brown eggs and hatchling (neonates or 1st instar) to small larvae (2nd instar) when they reach the economic spray threshold and before they become entrenched in squares, flowers and bolls.

The Cotton-growing Calendar

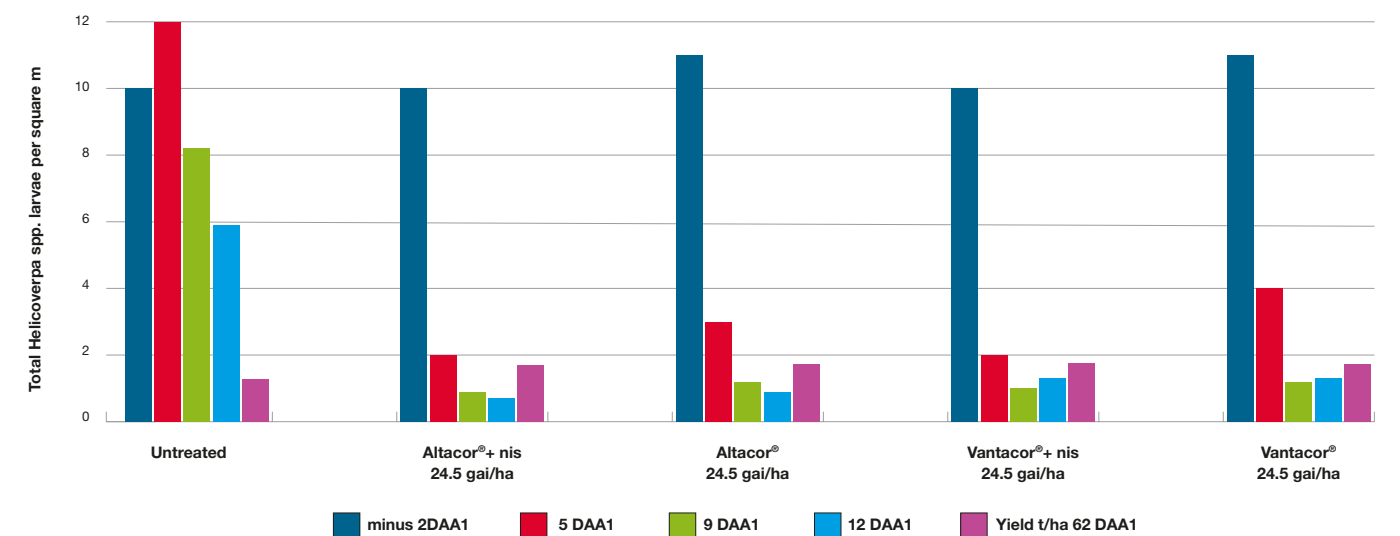
Growing Region	Soil Preparation	Planting	Growing Season	Picking (Harvesting)
Northern Australia	Nov - Feb	Jan - Mar	Feb - Jun	Jun - Aug
Emerald / Dawson Valley	Apr - Jul	Aug - Dec	Sep - May	Jan - Jul
All Other Regions	Jul - Sep	Oct - Nov	Nov - Mar	Mar - Jun



Label Directions for Chickpeas, Mung bean and Soybean crops

CROP	PEST	RATE/HA	WHP	CRITICAL COMMENTS
Cotton	Cotton bollworm (<i>Helicoverpa armigera</i>) Native budworm (<i>Helicoverpa punctigera</i>) Cluster caterpillar (<i>Spodoptera litura</i>)	55 or 90 mL + non ionic surfactant @ 125 gai/100 L	28 days	Target brown eggs and hatchling (neonates or 1st instar) to small larvae (2nd instar) when they reach the economic spray threshold and before they become entrenched in squares, flowers and bolls. Use the low rate on threshold larvae pressure (2 larvae per metre row) and low egg pressure. Use the high rate with high egg and/or larvae pressure (where potential for >2 larvae per metre row produced) and so as to achieve longer residual control of <i>Helicoverpa</i> spp. Target eggs and hatchling (neonates or 1st instar) to small larvae (2nd instar) when they reach the economic spray threshold and before they become entrenched in terminals or bolls.
	Northern rough bollworm (<i>Earias vittella</i>) Rough bollworm (<i>Earias huegeliana</i>)	90 mL + non ionic surfactant @ 125 gai/100 L		
Chickpea	Cotton bollworm (<i>Helicoverpa armigera</i>) Native budworm (<i>Helicoverpa punctigera</i>)	40 mL + non-ionic surfactant @ 125 gai/100 L	14 days	A maximum of two applications are to be applied to any one crop per season. Further treatments should be made with alternative mode of action insecticides. Regularly scout crops to monitor for larvae. Target sprays against larvae. Larvae in entrenched feeding sites will not be controlled. Use enough water to ensure thorough coverage of the crop. Target a minimum of 100 L/ha by ground rig and a minimum of 30 L/ha by aircraft. Use in accordance with Crop Life Insecticide Resistance Management Strategy guidelines. Target brown eggs and hatchlings (neonates or first instar) to small larvae (second instar) when they reach the economic spray threshold and before they become entrenched in flowers or pods
Mung bean, Soybean	Bean podborer (<i>Maruca vitrata</i>) Cotton bollworm (<i>Helicoverpa armigera</i>) Native budworm (<i>Helicoverpa punctigera</i>) Soybean looper (<i>Thysanoplusia orichalcea</i>) Bean looper (<i>Mocis alterna</i>) Irrorated tabby (<i>Anticarsia irrorata</i>)			
Winter pulse crops (except Chickpea) including; Faba/Broad bean, Field pea, Lentil, Lupin, Vetch	Cotton bollworm (<i>Helicoverpa armigera</i>) Native budworm (<i>Helicoverpa punctigera</i>)	40 mL + non-ionic surfactant @ 125 gai/100 L		
Summer pulse crops (except Mung bean and Soybean) including; Azuki/Adzuki bean, Cow pea, Navy bean, Pigeon pea	Bean podborer (<i>Maruca vitrata</i>) Cotton bollworm (<i>Helicoverpa armigera</i>) Native budworm (<i>Helicoverpa punctigera</i>) Soybean looper (<i>Thysanoplusia orichalcea</i>) Bean looper (<i>Mocis alterna</i>) Irrorated tabby (<i>Anticarsia irrorata</i>)			

KA19-1327 is Cotton at Pampas, Qld – sprayed 18.3.2020 & majority of population was *Helicoverpa armigera*.



Vantacor® Insecticide

SPRAY DRIFT RESTRAINTS

Specific definitions for terms used in this section of the label can be found at www.apvma.gov.au/spraydrift

DO NOT allow bystanders to come into contact with the spray cloud.

DO NOT apply in a manner that may cause an unacceptable impact to native vegetation, agricultural crops, landscaped gardens and aquaculture production, or cause contamination of plant or livestock commodities, outside the application site from spray drift. The buffer zones in the relevant buffer zone table/s below provide guidance but may not be sufficient in all situations. Wherever possible, correctly use application equipment designed to reduce spray drift and apply when the wind direction is away from these sensitive areas.

DO NOT apply unless the wind speed is between 3 and 20 kilometres per hour at the application site during the time of application.

DO NOT apply if there are hazardous surface temperature inversion conditions present at the application site during the time of application. Surface temperature inversion conditions exist most evenings one to two hours before sunset and persist until one to two hours after sunrise.

DO NOT apply by a boom sprayer unless the following requirements are met:

- spray droplets not smaller than a Medium spray droplet size category
- minimum distances between the application site and downwind aquatic areas (see 'Mandatory buffer zones' in table 1) are observed.

Buffer Zones for Boom Sprayers

Table 1: Mandatory Buffer Zone for protection of the aquatic environment

Application Rate	Mandatory Downwind Buffer Zone
Up to 90 mL/ha	20 metres

DO NOT apply by aircraft unless the following requirements are met:

- spray droplets not smaller than a **Medium** spray droplet size category
- for release heights 25% of wingspan or 25% of rotor diameter or lower above the target canopy, minimum distances between the application site and downwind aquatic areas (see 'Mandatory buffer zones' in table 2) are observed.

Buffer Zones for Aircraft

Table 2: Mandatory Buffer Zone for protection of the aquatic environment

Application Rate	Wind speed conditions	Mandatory Downwind Buffer Zone
Up to 90 mL/ha	3 - 8 km/h	100 metres
	8 - 14 km/h	200 metres
	15 - 20 km/h	400 metres

For further information please visit www.fmccrop.com.au or contact your local representative

ALWAYS READ AND FOLLOW LABEL DIRECTIONS.

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