

# fruit PROCESSING enzymes to catalyse YOUR ambition

LYVEN produces enzymes on an industrial scale by Solid State Fermentation on natural substrates (e.g. beet pulp, wheat bran...) using selected strains widely accepted in the food industry: *Aspergillus*, *Bacillus*, and *Trichoderma*...



**Peclyve  
range**

Enzymatic peeling  
Extraction yield  
Juice clarification  
Juice filtration and  
concentration  
Haze prevention  
Fruit firming




lyven®

# fruit PROCESSING enzymes

## Citrus fruits and other fruits processing enzymes







### CITRUS FRUITS

#### Composition

 Enzymatic fruit peel	<b>Peclyve Citrus Peel</b>	Hydrolysing enzyme active on the <b>albedo fraction</b> of citrus peels.	50-100 g/t
 Clarification	<b>Peclyve Citrus Clar</b>	<b>Deviscosification</b> enzyme for citrus fruit juice.	20-30 g/hl
 Pulp wash	<b>Peclyve Citrus Wash</b>	Enzyme preparation allowing <b>higher juice yields</b> out of <b>pulp wash</b> processes.	20-40 g/t
UF concentration	<b>Peclyve Citrus Juice</b>	Enzyme recommended for clarification and <b>ultrafiltration</b> of citrus fruit juice.	3-6 g/hl
Debittering	<b>Peclyve Citrus Soft</b>	Enzyme for <b>removing bitterness</b> in grapefruit juice.	50-100 g/t
Essential oil extraction	<b>Peclyve Citrus Oil</b>	Enzyme used for an <b>optimal</b> separation of essential oils.	50-100 g/hl

### OTHER FRUITS

#### Composition

 Pineapple	<b>Peclyve Pineapple</b>	Treatment enzyme for <b>fibre-rich</b> pineapple juices.	10-20 g/hl
 Olive	<b>Peclyve Oliva</b>	Enzyme used for an <b>optimal separation</b> of the oil.	50-150 g/t
	<b>Peclyve Oliva Preservative Free</b> <i>NEW</i>	Enzyme used for an optimal separation of the oil in <b>preservative free</b> processes.	50-150 g/t
	<b>Pectolyva Pectolyva Powder</b> <i>NEW</i>	Enzyme used for an <b>optimal separation</b> of the oil.	10-50 g/t (liquid or powder)
 Firming up (strawberry, papaya, pineapple...)	<b>Peclyve PME 900</b>	Firming up enzyme for <b>chopped fruits</b> .	200-1 000 g/t
	<b>Firmlyve</b> <i>NEW</i>	Firming up enzyme for chopped fruits. <b>Economical version (GMO)</b> .	50-200 g/t
 Arabica coffee	<b>Peclyve LIF+ Arabica</b> <i>NEW</i>	to remove mucilage of <b>Arabica bean</b>	100-500 g/t
	<b>Peclyve LIF+ Ripe Arabica</b> <i>NEW</i>	to remove mucilage of <b>ripe Arabica bean</b> .	100-300 g/t
 Robusta coffee	<b>Peclyve LIF+ Robusta</b> <i>NEW</i>	to remove mucilage of <b>Robusta bean</b> .	100-500 g/t
 Cocoa bean	<b>Peclyve LIF+ Cacao</b> <i>NEW</i>	Enzyme for <b>cocoa bean fermentation</b> .	100-500 g/t



# Peclyve range

## Apple and Pear processing enzymes

### APPLE

#### Composition

Pressing	<b>Peclyve Free run</b> <i>NEW</i>	Pressing enzyme especially developed for industrial extraction of apple juice on <b>Bucher®</b> press.	50-100 g/t
	<b>Lyvapect Free run</b> <i>NEW</i>	<b>Economical version</b> of a pressing enzyme especially targeted to industrial extraction of apple juice on <b>Bucher®</b> press.	50-100 g/t
	<b>Peclyve PR Peclyve PR Granule</b> <i>NEW</i>	Classical pressing enzyme recommended for <b>apple and other fruits</b> .	30-70 g/t
Heat-centrifugation	<b>Peclyve Natural</b> <i>NEW</i>	Maceration enzyme for <b>heat-centrifugation</b> (up to 60° C), suited for Golden and acid varieties of apple (Granny).	50-100 g/t
	<b>Peclyve CP</b>	<b>Clarification</b> enzyme for apple juice and other fruits.	1-2 g/hl
Clarification	<b>Peclyve CP FPO (Kosher For Passover)</b>	Kosher for Passover version of Peclyve CP.	1-2 g/hl
	<b>Peclyve UF+</b>	Filtration enzyme recommended for clarifying juices via <b>UF concentration</b> process.	3-6 g/hl
Starch haze formation control	<b>Amylyve TC</b>	Acid amylase with a <b>specific action on fruit starch</b> (apple and other fruits).	1-6 g/hl
	<b>Amylyve TC Super</b>	Concentrated version of Amylyve TC.	0.5-3 g/hl
Liquefaction	<b>Peclyve LI</b>	<b>Liquefaction</b> enzyme recommended for <b>apple and other fruits</b> processing. Also applicable to <b>vegetables</b> .	100-500 g/t
	<b>Peclyve LIF+</b>	Enzyme for liquefaction via <b>enhanced filtration</b> process.	250 – 500 g/t
	<b>Peclyve LIF+ Conc</b>	Concentrated version of Peclyve LIF+ .	50-150 g/t



### PEAR

#### Composition

Clarification	<b>Pearlyve</b>	Clarification enzyme for <b>araban-rich juices</b> .	1-3 g/hl
Araban haze formation control	<b>Peclyve A32</b> <i>NEW</i>	<b>Araban haze</b> treatment enzyme.	3-5 g/hl



### RED BERRIES & CURRANTS

#### Composition

Colour extraction	<b>Peclyve CP50%</b>	Extraction enzyme for an <b>optimal anthocyanin rate</b> in juice.	2-4 g/t
Clarification	<b>Peclyve ESP Peclyve ESP FPO (Kosher For Passover)</b>	Clarification enzyme adapted to juices produced out of <b>acid fruits</b> .	5-10 g/hl
	<b>Peclyve BNS GLY</b> <i>NEW</i>	Clarification enzyme recommended for <b>heat clarification</b> of juices produced out of <b>acid fruits</b> .	5-10 g/hl



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## Fruit processing enzymes

*Fruit and vegetable processing  
fruit juices, coffee, chocolate, oils...*

Enzymes are widely used in the fruit and vegetable processing industry for their following functional properties:

- ◆ **Fruit peeling**  
Pectinases may be environmental friendly alternatives to chemicals for fruit peeling.
- ◆ **Extraction yield**  
Pectinases with cellulase and hemicellulase side-activities are relevant cell wall degrading enzymes to maximize extraction of juice and/or biologically active molecules from fruits and vegetables.
- ◆ **Juice clarification**  
Pectinases helps juice clarification by speeding up sedimentation of pulp and residual solids.
- ◆ **Juice filtration and concentration**  
Pectinases and relevant cell wall degrading enzymes prevent fouling of membrane filtrations and make concentration at high° Brix possible.
- ◆ **Haze prevention**  
Acid stable starch and hemicellulose degrading enzymes prevent haze formation in fruit juice concentrates.
- ◆ **Fruit firming**  
Pectine methyl esterase liberates many carboxylic moieties which can combine with calcium to make firm gel.

**lyven**<sup>®</sup>  
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◆ GROUPE soufflet

fruit RANGE  
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