

Conference	Basic colour (see the photos)	Divergen- ce from basic- colour	Hollowing and browning of flesh	Open damage - rot - s cald - bitter pit	Bottle- shaped (pear > 2.5 length:1 diameter)	Russetting (photos)	Early symptoms of wrinkled necks (see the photos)	Skin damage: abrasion-wind- frost/ bruising/ scab	Hail damage (no open wounds)	Damage formed in grading (> than 24 hours after grading)	Pear psyllids	Black mould	Snapped stems, providing flesh is intact (see the photos)	Grade	Av. hardness	Individual hardness (lower limit)	Individual hardness tolerance	Av. sugar con- tent	Individual sugar content (lower limit)	Individual sugar content tolerance	
version: 27-10-11	Bronzing is not an inspection criterion				The total sum of these divergences may not exceed 10%.																
Class 1.1	colour 1	5 % colour 2	2%	2%	That 10% may diverge at most 2x the standard prescribed for the quality class concerned								10%	10% under/ oversized	> 5 kg/cm2	> 4.5 kg/cm2	5%	> 11.5	> 10.5	5%	
					2%	10% of the fruit, max 20% net-like russetting and max 5% raised russetting of the fruit area	5%	5% of the fruit with a max area of 1 cm2 (scab at most 0.25 cm2)	5% of the fruit with a max area of 0.5 cm2	5% of the fruit with a max area of 1 cm2	5% (at most 10% of the area)	10% of the fruit area slightly affected and 0% of the fruit area more severely affected									
Class 1.2	colour 1	30% colour 2	2%	2%	5%	25% of the fruit, max 20% net-like russetting and max 5% raised russetting of the fruit area	10%	10% of the fruit with a max area of 1 cm2 (scab at most 0.25 cm2)	10% of the fruit with a max area of 0.5 cm2	10% of the fruit with a max area of 1 cm2	10% (at most 10% of the area)	20% of the fruit area slightly affected and 0% of the fruit area more severely affected	25%	10% under/ oversized	> 5 kg/cm2	> 4.5 kg/cm2	10%	> 11.5	> 10.5	10%	
Class 1.3	colour 1	50 % colour 2	2%	2%	10%	Max 20% net-like russetting and max 5% raised russetting of the fruit area	10%	fruit with a max area of 1 cm2 (scab at most 0.25 cm2)	fruit with a max area of 1 cm2	25% of the fruit with a max area of 1 cm2	10% (at most 20% of the area)	20% of the fruit area slightly affected and 5% of the fruit area more severely affected	50%	10% under/ oversized	> 4.5 kg/cm2	> 4 kg/cm2	10%	> 11	> 10	10%	
Class 2.1	colour 1- 2	50 % colour 2	2%	2%	30%	Max. 30% net-like russetting and max 10% raised russetting of the fruit area	20%	fruit with a max area of 1 cm2 (scab at most 0.25 cm2)	fruit with a max area of 1 cm2	50% of the fruit with a max area of 1 cm2	20% (at most 20% of the area)	30% of the fruit area slightly affected and 10% of the fruit area more severely affected	50%	10% under/ oversized	> 4.5 kg/cm2	> 4 kg/cm2	10%	> 11	> 10	10%	
Class 2.2	colour 2	100 % colour 2	2%	2%	100%	50% of the fruit, max 50% net-like russetting and max 33% raised russetting of the fruit area	30%	fruit with a max area of 1 cm2 and 50% of the fruit with a max area of 2.5 cm2 (scab at most 1 cm2)	fruit with a max area of 1 cm2 and 50% of the fruit with a max area of 2.5 cm2	fruit with a max area of 1 cm2 and 50% of the fruit with a max area of 2.5 cm2	30% (at most 20% of the area)	50% of the fruit area slightly affected and 20% of the fruit area more severely affected	70%	10% under/ oversized	> 4 kg/cm2	> 3.5 kg/cm2	10%	> 10.5	> 9.5	10%	
Class 2.3	colour 2-3	100 % colour 3	2%	2%	100%	Max 50% net-like russetting and max 33% raised russetting of the fruit area	50%	fruit with a max area of 2.5 cm2 (scab at most 1 cm2)	fruit with a max area of 2.5 cm2	fruit with a max area of 2.5 cm2	50% (at most 30% of the area)	50% of the fruit area slightly affected and 33% of the area more severely affected	100%	10% under/ oversized	> 4 kg/cm2	> 3.5 kg/cm2	10%	> 10.5	9.5	10%	
Conference Quality Cards																					

Conference Quality Cards

<p>Class 1.1</p> <ul style="list-style-type: none"> -Colour: 1 divergence 5% colour 2 -Hollowing/browning: 2 % -Open damage: 2% -Bottle-shaped: 2% (definition of bottle-shaped) -Russetting: 10% of the fruit, 20% net-like and 5% raised russetting. -Necks starting to wrinkle: 5% -Skin damage: 5% of the fruit, max. area of 1cm2 (scab at most 0.25 cm2) -hail damage: 5% of the fruit, max. area of 0.5 cm2 -Damage formed in grading: 5% of the fruit, max. area of 1 cm2 -Pear psyllids: 5%, at most 10% of the area -Black mould: 20% of area slightly affected and 5% more severely affected. -Snapped stems: 10% -Grade: 10% under/oversized. -Hardness: av. >5 kg/cm2 (individually > 4.5 with 5% tolerance) 	<p>Class 1.2</p> <ul style="list-style-type: none"> -Colour: 1 divergence 30% colour 2 -Hollowing/browning: 2 % -Open damage: 2% -Bottle-shaped: 5% (definition of bottle-shaped) -Russetting: 25% of the fruit, 20% net-like and 5% raised russetting. -Necks starting to wrinkle: 10% -Skin damage: 10% of the fruit, max area of 1 cm2 (scab at most 0.25 cm2) -hail damage: 10% of the fruit, max. area of 0.5 cm2 -Damage formed in grading: 10% of the fruit, max. area of 1 cm2 -Pear psyllids: 10%, at most 10% of the area -Black mould: 20% of area slightly affected and 0% more severely affected. -Snapped stems: 25% -Grade: 10% under/oversized. -Hardness: av. >5 kg/cm2 (individually > 4.5 with 5% tolerance) 	<p>Class 1.3</p> <ul style="list-style-type: none"> -Colour: 1 divergence 50% colour 2 -Hollowing/browning: 2 % -Open damage: 2% -Bottle-shaped: 10% (definition of bottle-shaped) -Russetting: 20% net-like and 5% raised russetting. -Necks starting to wrinkle: 10% -Skin damage: fruit with a max. area of 1 cm2 (scab at most 0.25 cm2) -hail damage: fruit with a max. area of 1 cm2 -Damage formed in grading: 25% of the fruit, max. area of 1 cm2 -Pear psyllids: 10%, at most 20% of the area -Black mould: 20% of area slightly affected and 5% more severely affected. -Snapped stems: 50% -Grade: 10% under/oversized. -Hardness: av. >4.5 kg/cm2 (individually > 4 with 10% tolerance) 	<p>Class 2.1</p> <ul style="list-style-type: none"> -Colour: 1-2 divergence 50% colour 1 (photo) -Hollowing/browning: 2 % -Open damage: 2% -Bottle-shaped: 30% (definition of bottle-shaped) -Russetting: 30% net-like and 10% raised russetting. -Necks starting to wrinkle: 20% -Skin damage: fruit with a max. area of 1 cm2 (scab at most 0.25 cm2) -hail damage: fruit with a max. area of 1 cm2 -Damage formed in grading: 50% of the fruit, max. area of 1 cm2 -Pear psyllids: 20%, at most 20% of the area -Black mould: 30% of area slightly affected and 10% more severely affected. -Snapped stems: 50% -Grade: 10% under/oversized. -Hardness: av. >4.5 kg/cm2 (individually > 4 with 10% tolerance) 	<p>Class 2.2</p> <ul style="list-style-type: none"> -Colour: 1-2 divergence 100% colour 2 -Hollowing/browning: 2 % -Open damage: 2% -Bottle-shaped: 100% (definition of bottle-shaped) -Russetting: 50% of the fruit with 50% net-like and 33% raised russetting. -Necks starting to wrinkle: 30% -Skin damage: fruit with a max. area of 1 cm2 and 50% max. 2.5 cm2 (scab at most 1cm2) -hail damage: fruit with a max. area of 1 cm2 and 50% max. 2.5 cm2 -Damage formed in grading: fruit with a max. area of 1 cm2 and 50% max. 2.5 cm2 -Pear psyllids: 20%, at most 20% of the area -Black mould: 50% of area slightly affected and 20% more severely affected. -Snapped stems: 70% -Grade: 10% under/oversized. -Hardness: av. >4 kg/cm2 (individually > 3.5 with 10% tolerance) -Sugar: av. >10.5 (individually >9.5 with 10% tolerance) 	<p>Class 2.3</p> <ul style="list-style-type: none"> -Colour: 2-3 divergence 100% colour 3 -Hollowing/browning: 2 % -Open damage: 2% -Bottle-shaped: 100% (definition of bottle-shaped) -Russetting: 50% of the fruit with 50% net-like and 33% raised russetting. -Necks starting to wrinkle: 50% -Skin damage: fruit with a max. area of 2.5 cm2 -hail damage: fruit with a max. area of 2.5 cm2 -Damage formed in grading: fruit with a max. area of 2.5 cm2 -Pear psyllids: 30%, at most 20% of the area -Black mould: 50% of area slightly affected and 33% more severely affected. -Snapped stems: 100% -Grade: 10% under/oversized. -Hardness: av. >4 kg/cm2 (individually > 3.5 with 10% tolerance)
---	---	--	--	--	--

Fruit colour

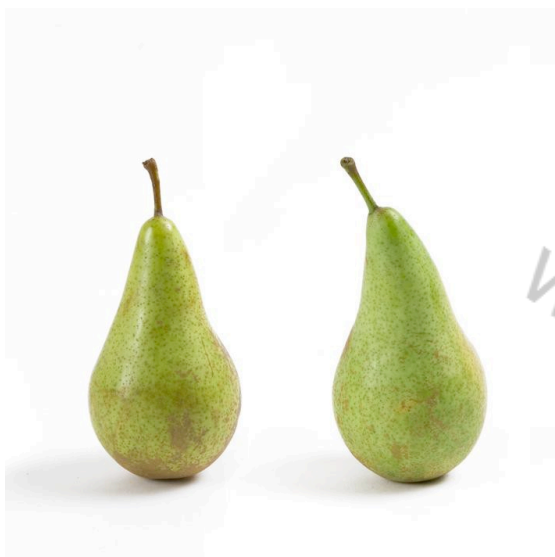


Photo 1: Optimum fruit colour – basic colour 1

- Conference pears should have a green basic colour at the time of sale (basic colour 1).
- The above photos show the range within which a pear conforms to this basic colour 1 requirement.



Photo 2: Slight yellowing of fruit colour – basic colour 2

- Some Conference pears may have a slightly less green basic colour than basic colour 1. Some of the fruit of class 1 may show slight yellowing. Pears showing slight yellowing are classed as having basic colour 2. Less stringent requirements hold for pears of class 2.
- The above photos show the range within which a pear conforms to the requirements of basic colour 2.

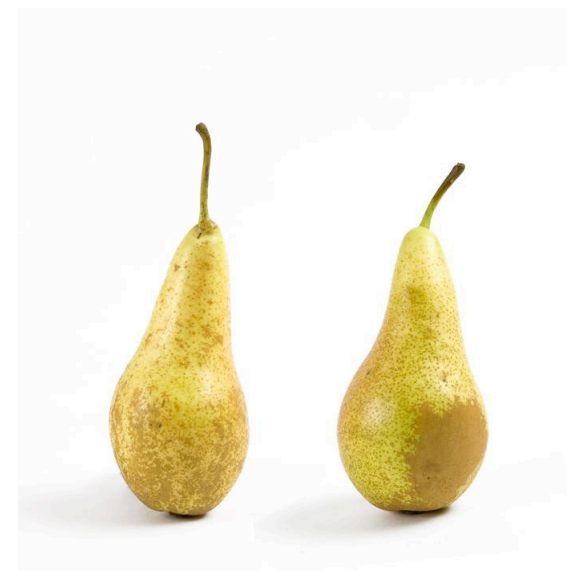


Photo 3: Complete yellowing of fruit colour – basic colour 3

- Conference pears showing a high degree of yellowing are considered to be of moderate quality for sale. Yellow pears are not acceptable for classes 1, 2.1 and 2.2. Fruit of class 2.3 may show yellowing.
- The above photos show the range within which a pear conforms to the requirements of basic colour 3.

Fruit shape



Photo 1: Optimum fruit shape

- The fruit has a typical pear shape
- Length/diameter ratio is about 2:1 (the pear is roughly 2x as long as it is wide)



Photo 2: Bottle-shaped pears

- Conference pears may show slight deformation referred to as 'bottle-shaped'
- The fruit does not have the typical pear shape
- The length/diameter ratio is 2.5:1 or greater
- Different proportions of bottle-shaped pears are accepted in the different classes

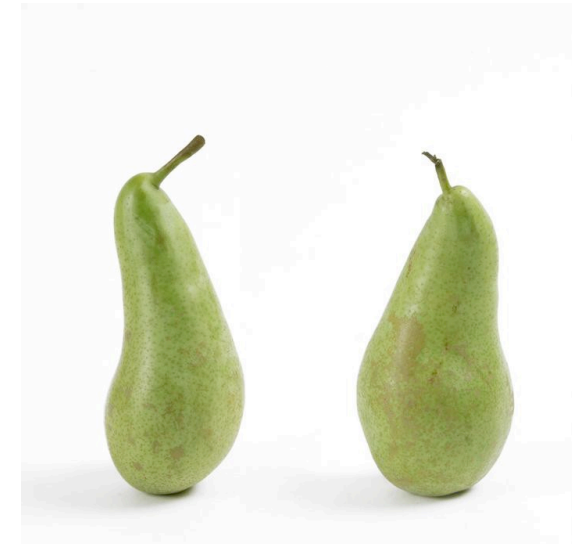


Photo 3: Slightly deformed, but still conforming to the requirements of class 1; not bottle-shaped

- Pears showing slight deformation are not declassified as 'bottle-shaped'.
- The length/diameter ratio of these slightly deformed pears is still 2:1

Russetting



Photo 1: A bronze colour is a desired characteristic

- The skin of Conference pears naturally has a bronze colour to a varying degree. This is a desirable characteristic. A partly bronze pear is usually more highly appreciated than a completely green pear.
- The degree of the bronze colouring is largely dependent on the season, the spraying schedule and the type of Conference pear grown.



Photo 2: Slight raised russetting

- More or less scale-shaped russetting is however undesirable.
- The extent to which russetting is tolerated differs from one quality to another.
- Net-like russetting is also regarded as an undesirable characteristic, but it is tolerated more than raised russetting.

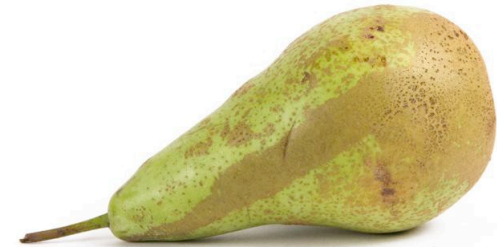


Photo 3: Raised russetting



Photo 4: Net-like russetting

Damage (1)

Photo 1: Wrinkled necks(to follow)

- Loss of moisture during storage may cause a pear to wrinkle slightly, especially at the neck. This is referred to as a soft or wrinkled neck.

Photo 2: Wrinkled necks (to follow)

- The slight extent to which wrinkled necks are tolerated depends on the grading class (see the specifications).

Photo 3: Bruises (to follow)

Pears may be slightly compressed, resulting in bruises during storage, especially if too much moisture is extracted from them in the cold store.

Damage (2)



Photo 1: Slight abrasion damage



Photo 2: Severe abrasion damage

- Pears may easily become damaged by abrasion if they hang against a branch, post or wire.
- The degree of abrasion damage may be quite severe in particular in pears growing at the tops of trees.
- A very slight degree of abrasion damage is tolerated in class 1. A slightly higher degree is tolerated in class 2 (see the specifications).

Damage (3)

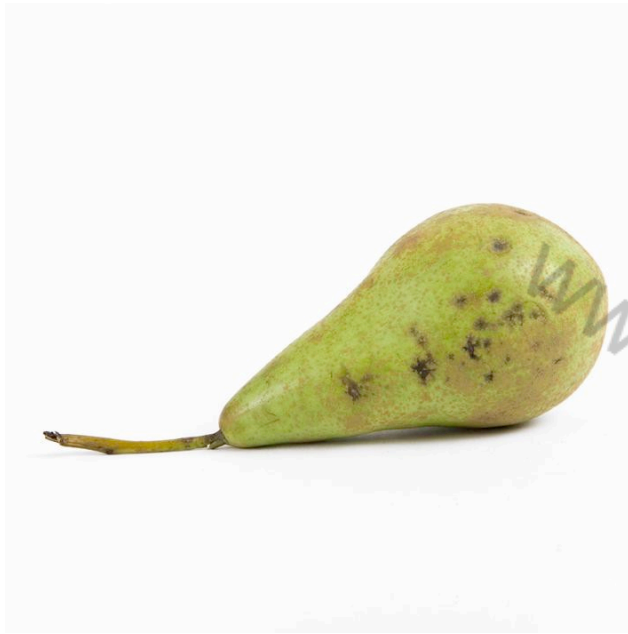


Photo 1: Scab



Photo 2: Scab



Photo 3: Scab

- Scab is one of the most influential fungus diseases in pears.
- Scab is not, or virtually not tolerated in class 1. The requirements for class 2 are a little less severe.

Snapped stems



Photo 1: Snapped stem



Photo 2: Snapped stem



Photo 3: Snapped stem

- A high percentage of pears with snapped stems in a batch is caused by careless picking.
- Snapped stems cause a lot of damage to pears during harvesting and grading and on the shop floor. The stems will readily prick other fruit, increasing the risk of rotting.
- Another disadvantage of snapped stems is that the pears lose more moisture and their necks consequently tend to wrinkle. The stems moreover turn black, making the pears look less fresh.
- In view of the disadvantages of snapped stems, the tolerances in S2F's specifications are more stringent than usual. The extent to which snapped stems are tolerated depends on the grading class.

Clean and free of contaminants

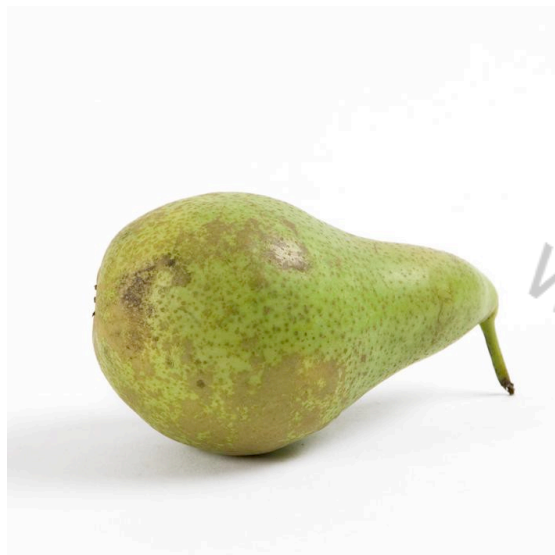


Photo 1: Slight black mould caused by psyllids in summer

Psyllids are the most influential pests in pear orchards. The insects suck on the leaves and pears, excreting honeydew in the process. Black mould may then develop on that honeydew and remain there until the time of harvest. The type of damage concerned is illustrated in photos 1 and 2.



Photo 2: Severe black mould caused by psyllids in summer

Only a very slight degree of psyllid damage is tolerated in the case of pears of class 1. The tolerances for class 2 are a bit higher (see the specifications).

The black mould cannot be washed off and will remain on the fruit after grading.



Photo 3: Contamination caused by earworm faeces

Other insects besides the aforementioned psyllids may cause contamination in pears. Most pears will however be washed during the grading and packing process, and then such contamination will disappear.

Damage formed in grading

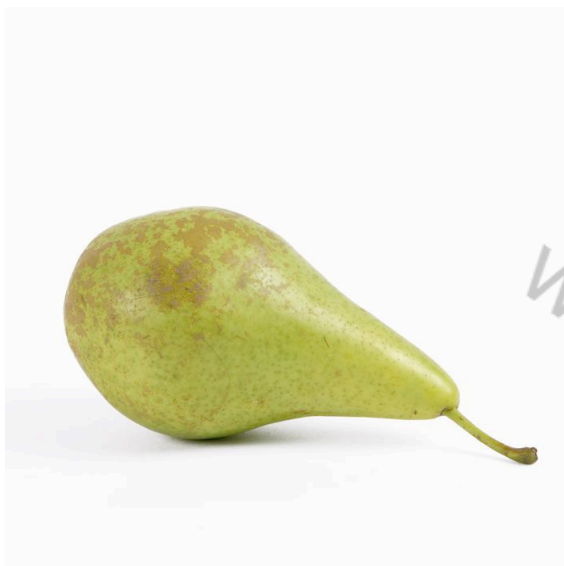


Photo 1: Slight damage formed in grading

After grading, the skin of Conference pears will readily discolour slightly. This can be prevented by grading the pears very carefully and packing them by hand. The pears should have a temperature of at least 5°C before being graded.



Photo 2: Slight damage formed in grading

From September until the end of March the risk of damage formed in grading is fairly small. It will steadily increase after March. Such discolouration will affect high-quality batches to a lesser extent than batches of a poorer quality.

Photo 3: Severe damage formed in grading (to follow)

**Progressive damage
(at most 2% tolerance)**



Photo 1: Open damage

- Open damage may be caused during picking, but above all also during grading, for example when stems prick the skin or pickers damage the skin with their nails.

Photo 2: Hollow pear (to follow)

- Certain conditions during the early stage of storage may lead to cavities in the pear flesh. The riper the pears at the time of harvest, the greater the risk of this form of damage during storage.

Photo 3: Internal browning (to follow)

Pears that are becoming very ripe may show damage in the form of browning around the core.

Hail damage

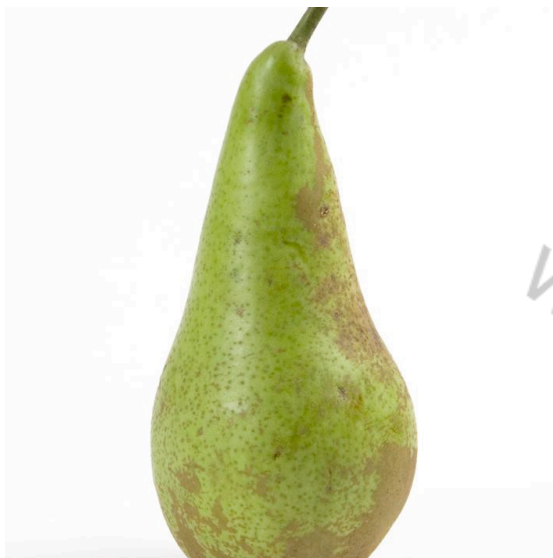


Photo 1: Early hail, slight damage

- Slight hail damage caused in the first 6-8 weeks after flowering. The hailstones have led to the formation of small warts.
- In class 1 such damage is tolerated to a slight degree (see the specifications).



Photo 2: Early hail, severe damage

- Severe hail damage caused in the first 6-8 weeks after flowering.
- The wounds have healed, but they are still clearly visible as indentations.
- Such healed damage is to a slight degree tolerated in class 2.

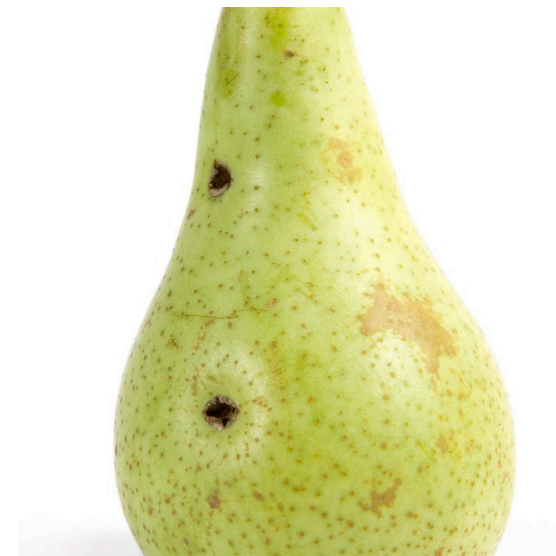


Photo 3: Late hail, severe damage

- Late hail damage is characterised by wounds that have not completely healed. Wounds that are still open are comparable with open damage, and they are hence not tolerated in class 1. If the wounds are cork-like then such damage is to a slight degree tolerated in class 2 (see the specifications).