



Best Practice Guidelines for the use of CIPC

CIPC (chlorpropham) is vital to the potato industry but the compound, the main treatment used for sprout control of stored potatoes in the UK, remains under regulatory scrutiny. As well as the final step-down in application rates agreed with regulators, other controls on CIPC usage have been introduced. All applications must now take place using fans (**active recirculation**) and the **maximum individual dose is 12 grams per tonne**.

REGULATORY AND BEST PRACTICE REQUIREMENTS

Best practice methods should be adopted in all stores using CIPC to ensure applications are as effective as possible with even distribution of the chemical. All applications now require the use of fans for **active recirculation** of the fog. Further advice on implementing active recirculation can be found in **CIPC APPLICATION: A STORE OWNER'S GUIDE** produced by the Potato Industry CIPC Stewardship Group and available at the CIPC Compliant website.

With lower total and individual doses there is a risk that efficacy may be compromised. Users should adopt best practice *as far as possible* to maximise efficacy and to ensure any loss of efficacy is detected early so that crop can be marketed.

Total dose	Fresh market: maximum 24 grams per tonne (but see cold storage limits below) Processing: maximum 36 grams per tonne (including fish & chip shop use)
Individual dose	The maximum individual dose is 12 grams per tonne
Cold storage for fresh market	Where storage will ultimately be at 5°C or below, only one application should be made, before the crop temperature is reduced below 7°C.
Harvest interval	The latest time of application is 14 days before removal from store for sale or processing.
Advisors	Recommendations must be made by BASIS qualified advisors who have inspected the crop.
Equipment	Application equipment must be inspected and certificated annually by NSTS .
Applicators	Personnel must be qualified to NPTC PA1, PA9 and should be members of the NAAC CIPC Applicators' Group .
Stores	Store managers/owners must have inspected and reported stores as fit for application using the PICSG Store Checklist . This is a Red Tractor Assurance requirement .
Responsibility	Overall responsibility for CIPC use lies with the crop owner – not the store manager, CIPC applicator or BASIS advisor.

BASIS - www.basis-reg.com

NAAC - National Association of Agricultural Contractors: www.naac.co.uk

NPTC - National Proficiency Testing Council: www.nptc.org.uk

NSTS - National Sprayer Testing Scheme: www.nsts.org.uk

PICSG - Potato Industry CIPC Stewardship Group: www.becipcompliant.co.uk

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ALWAYS READ THE LABEL, USE PESTICIDES SAFELY

For more information on CIPC treatment of stores visit www.cipccompliant.co.uk.

BEFORE LOADING

Ensure the store is prepared for the forthcoming season. Plan storage to allow varieties with similar characteristics (dormancy and holding temperature) to be held in the same store.

DURING LOADING

At store loading, remove as much soil as possible and ventilate with as much air as possible until crop is dry. Do not overfill boxes as this will extend the period needed for drying as well as restrict CIPC distribution. Where CIPC spray products are applied at store loading, these may not be followed by hot fog applications.

AFTER LOADING

Once crop is dry and cured, typically around 14 days, apply CIPC. Do not delay application if the crop is warm. **Ensure initial CIPC application is made before dormancy break.** Late applications of CIPC are not as effective and storage duration may need to be curtailed, especially during storage for processing, where reducing storage temperature may not be an option.

Minimise sprouting pressure by pulling store temperature down quickly and holding at the lowest temperature that crop condition allows.

Prior to application, recirculate store air, with fridge off, for a minimum of 6 hours to ensure temperatures are even. Take care not to introduce warm ambient air that may cause condensation on cold potatoes, concrete floors or metal ductwork etc. This is especially important, in refrigerated cold stores and in processing stores that are flushed for CO₂ control just before an application of CIPC is made.

Where possible, avoid making applications under windy conditions and when the store is not full – application efficiency will be reduced.

Best practice in bulk stores	Best practice in box stores
In UK type bulk stores active recirculation is achieved with fans at low-speed (after fitting an inverter) or, occasionally, after fitting additional fan(s). In continental design stores, where there are more fans, treatments may be made with fans at full speed. If in doubt speak with your store designer or NAAC CIPC contractor.	In box stores with positive ventilation (e.g. letterbox or lateral flow), fog should be recirculated at low speed with an inverter-controlled fan. 'Overhead throw' stores should be modified to allow active recirculation using a plenum or an 'open suction' system using an air separator.
Further guidance on store modifications are provided in CIPC APPLICATION: A STORE OWNER'S GUIDE Recirculation must take place throughout CIPC application and until the fog has cleared. Where fans are used to recirculate CIPC, fridge coils and humidifier screens must be by-passed. Stores where CIPC is used must be clearly labelled with a permanent sign.	

It is important to discuss the appropriate use of CIPC for your storage with your BASIS advisor and/or NAAC applicator. Any exceedance of the Maximum Residue Level for CIPC is likely to result in additional sanctions on its use. BASIS advisors and store managers should ensure that the least amount of CIPC is used, and it is evenly distributed, by adopting best practice. To discuss best practice in your stores, call AHDB Crop Storage Research at Sutton Bridge on 0800 02 82 111.



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