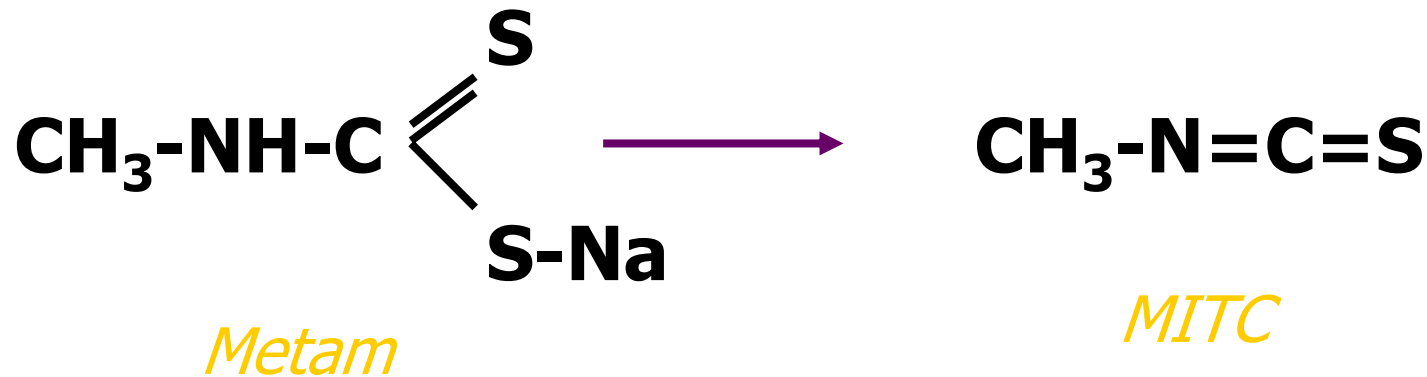




Improved techniques for the application of metam-sodium

Jean-Michel Rabasse
TAMINCO n.v.

Metam-sodium chemistry



- **MITC is the active ingredient**
 - ⌘ 20 times more effective than methyl-bromide

APPLICATION *conditions of success*

- **MS and MITC don't move easily in soil**
 - ⌘ to provide a good distribution of the product within the soil layer to be disinfected
- **Good application = good efficacy**
 - ⌘ soil conditioning
 - ⌘ to locate the product close to the pest to control
- **Adapt the equipment to the local conditions**
 - ⌘ injection or drip-irrigation

Suitable techniques of application

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Mix - injection



Drip-fumigation



Metam-sodium Injection + mixing

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Injection + Mixing - OLIVER

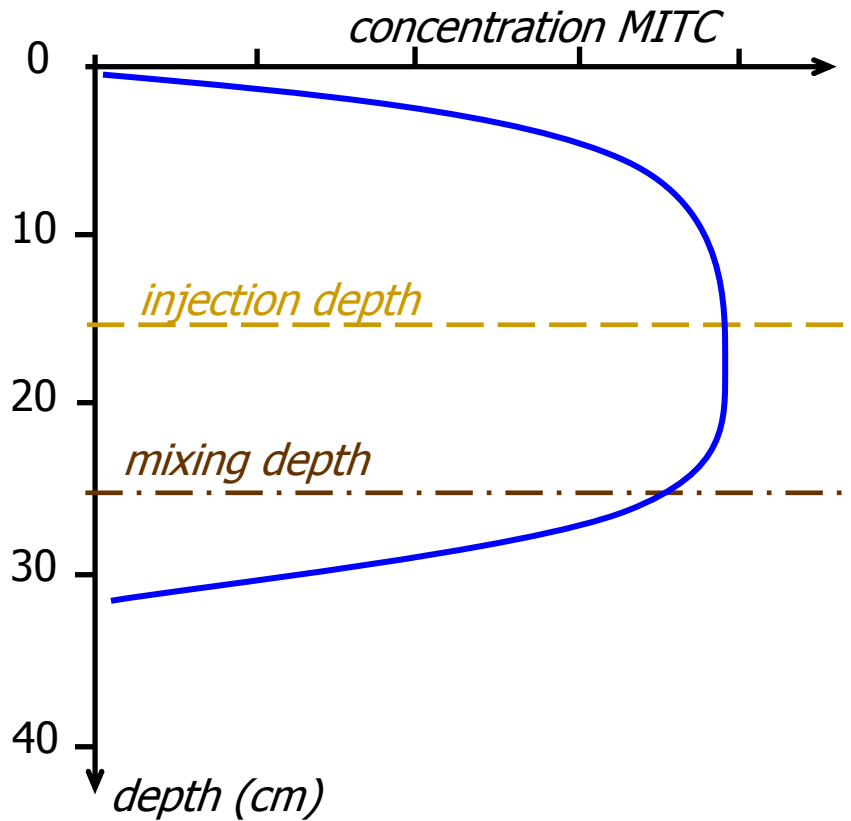
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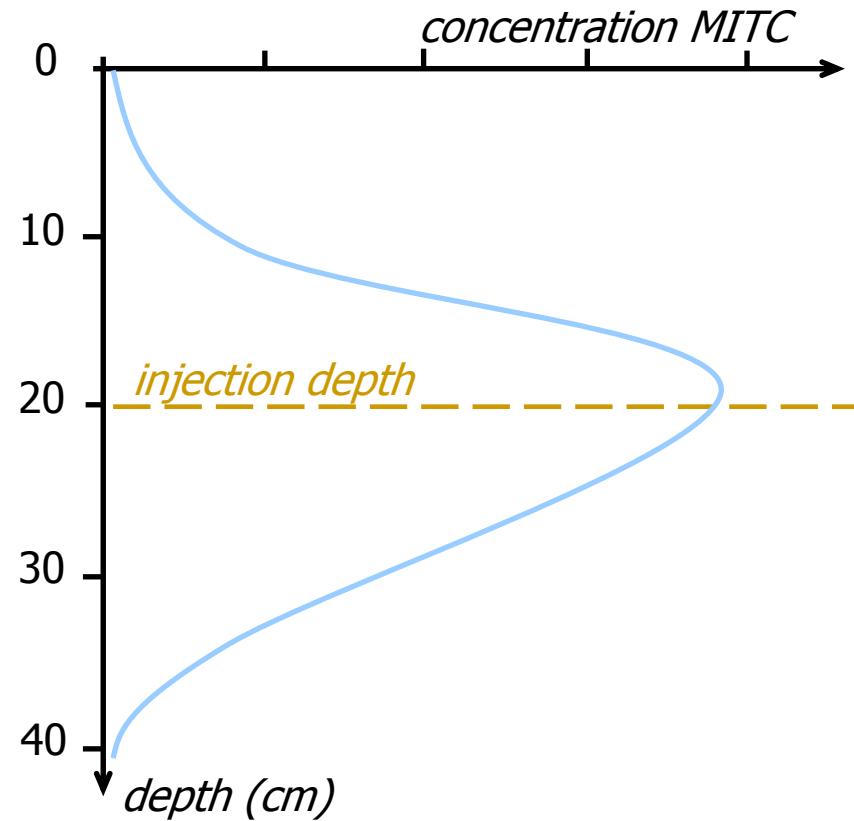
APPLICATION

injection

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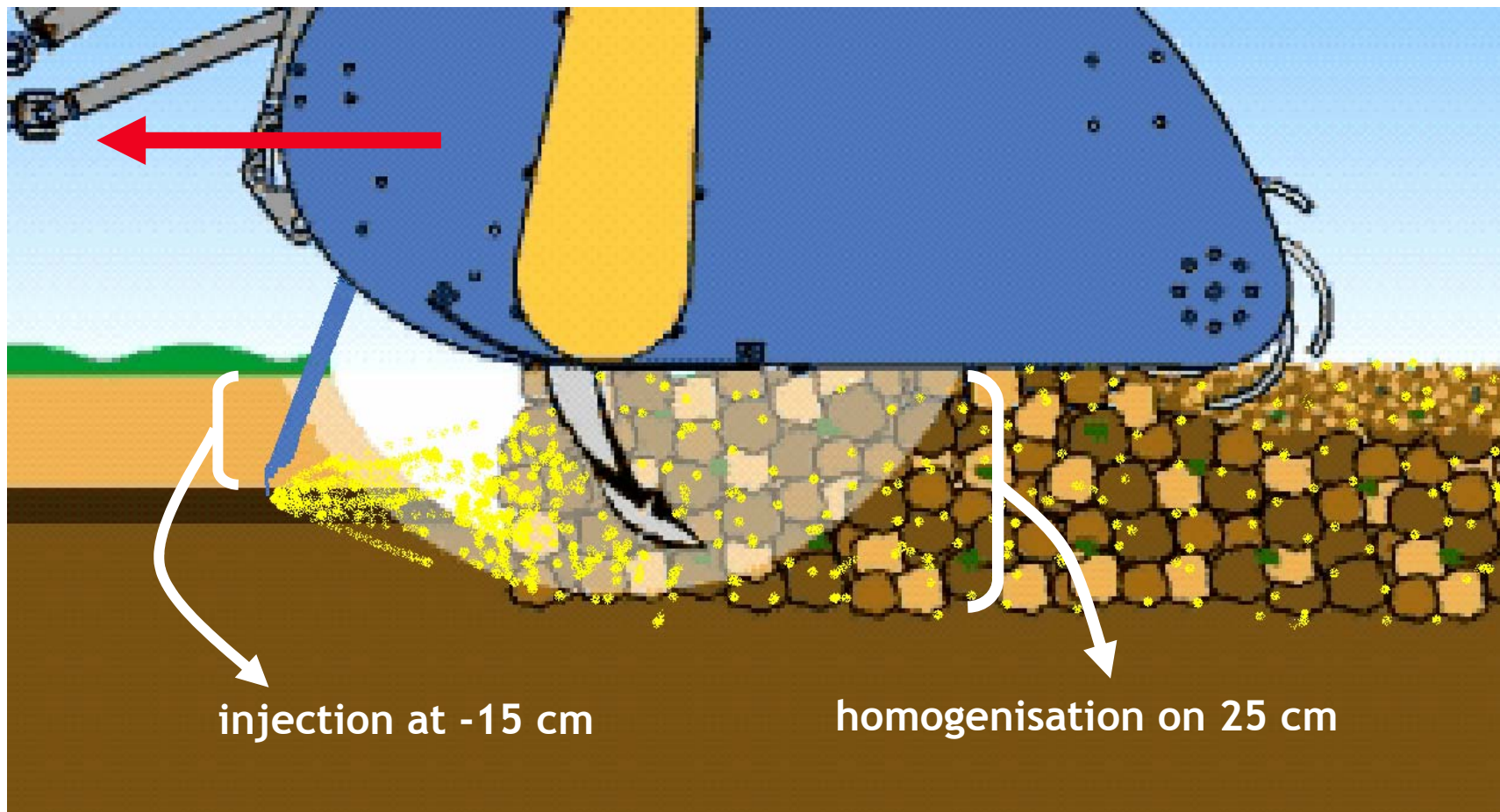
injection + mixing



no mixing

Injection + mixing with rotating spades

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Injection *Goose feet & Fan spray nozzles*

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fan spray





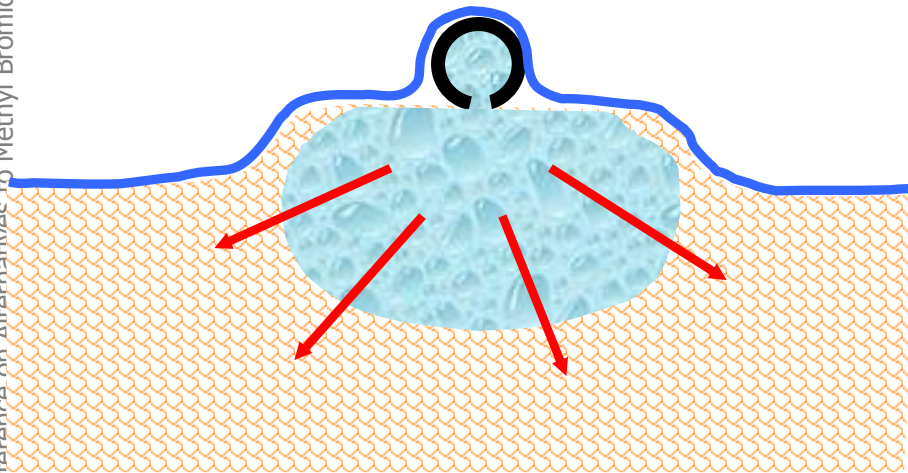


APPLICATION

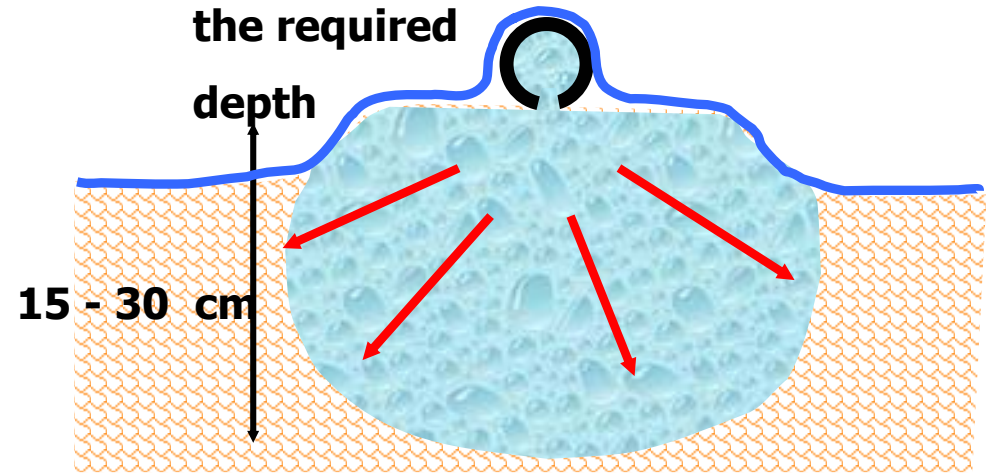
drip-fumigation

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**NEMASOL diluted
1-5% in water**



**10-40 mm of dilution
in order to reach
the required
depth**



INCORPORATION with water front

APPLICATION

drip-irrigation

- **increase number of dripping-holes**
 - ⌘ lines 50 cm apart
 - ⌘ dripping-hole each 30 cm on the line
- **keep soil humid 1-2 weeks before**
- **apply enough water to reach the depth to be desinfected, but not more**

Usable indoor and outdoor



Drip-irrigation

re-usable device



Drip-irrigation

re-usable device



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Drip-irrigation

re-usable device



Drip-irrigation - melon



Drip-irrigation - Strawberry

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STRAWBERRY - Trials in Spain

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SUMMARY of 3 years trials	Increase of the marketable yield			
	1997	1998	1999	Average 97-99
METAM 1.200 l/ha drip irrig. + plastic mulch	12,8%	23,0%	17,1%	17,6%
METAM 1.200 l/ha injected + plastic mulch			17,1%	17,1%
METAM 600 l/ha drip irrig. + plastic mulch	5,8%	11,9%		8,9%
METAM 1.200 l/ha drip irrig. + water seal	6,2%	11,7%	11,9%	9,9%
MetBr 500 kg/ha + VIF	10,4%	22,5%	15,5%	16,2%

Metam-sodium at 1.200 l/ha is a viable alternative to methyl-bromide for the control of nematodes and soil fungi on strawberry.

STRAWBERRY France – cost €/ha

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