

Attachment 1 - Proposed ink amendments to adopted Annexes to ISPM 28 (*Phytosanitary treatments for regulated pests*)

PT#	PT Title	Changes in the treatment schedule	Rationale for ink amendment to reflect end-point
PT 1	Irradiation treatment for <i>Anastrepha ludens</i>	<p>Minimum absorbed dose of 70 Gy to prevent the emergence of adults of <i>Anastrepha ludens</i>.</p> <p>Efficacy and confidence level of the treatment is ED_{99.9968} at the 95% confidence level.</p> <p>There is 95% confidence that the treatment according to this schedule prevents emergence of not less than 99.9968% of adults of <i>Anastrepha ludens</i>.</p>	The confirmatory trials demonstrated that the stated dose prevented adult emergence from the fruit that were treated containing third instar larvae that were identified as the most tolerant life stage.
PT 2	Irradiation treatment for <i>Anastrepha obliqua</i>	<p>Minimum absorbed dose of 70 Gy to prevent the emergence of adults of <i>Anastrepha obliqua</i>.</p> <p>Efficacy and confidence level of the treatment is ED_{99.9968} at the 95% confidence level.</p> <p>There is 95% confidence that the treatment according to this schedule prevents emergence of not less than 99.9968% of adults of <i>Anastrepha obliqua</i>.</p>	The confirmatory trials demonstrated that the stated dose prevented adult emergence from the fruit that were treated containing third instar larvae that were identified as the most tolerant life stage.
PT 3	Irradiation treatment for <i>Anastrepha serpentina</i>	<p>Minimum absorbed dose of 100 Gy to prevent the emergence of adults of <i>Anastrepha serpentina</i>.</p> <p>Efficacy and confidence level of the treatment is ED_{99.9972} at the 95% confidence level.</p> <p>There is 95% confidence that the treatment according to this schedule prevents emergence of not less than 99.9972% of adults of <i>Anastrepha serpentina</i>.</p>	The confirmatory trials demonstrated that the stated dose prevented adult emergence from the fruit that were treated containing third instar larvae that were identified as the most tolerant life stage.

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PT 4	Irradiation treatment for <i>Bactrocera jarvisi</i>	<p>Minimum absorbed dose of 100 Gy to prevent the emergence of adults of <i>Bactrocera jarvisi</i>.</p> <p>Efficacy and confidence level of the treatment is ED_{99.9981} at the 95% confidence level.</p> <p>There is 95% confidence that the treatment according to this schedule prevents emergence of not less than 99.9981% of adults of <i>Bactrocera jarvisi</i>.</p>	The confirmatory trials demonstrated that the stated dose prevented adult emergence from the fruit that were treated containing 1-day old eggs and third instar larvae that were identified as the most tolerant life stages.
PT 5	Irradiation treatment for <i>Bactrocera tryoni</i>	<p>Minimum absorbed dose of 100 Gy to prevent the emergence of adults of <i>Bactrocera tryoni</i>.</p> <p>Efficacy and confidence level of the treatment is ED_{99.9978} at the 95% confidence level.</p> <p>There is 95% confidence that the treatment according to this schedule prevents emergence of not less than 99.9978% of adults of <i>Bactrocera tryoni</i>.</p>	The confirmatory trials demonstrated that the stated dose prevented adult emergence from the fruit that were treated containing 1-day old eggs and third instar larvae that were identified as the most tolerant life stages.
PT 6	Irradiation treatment for <i>Cydia pomonella</i>	<p>Minimum absorbed dose of 200 Gy to prevent the emergence of adults of <i>Cydia pomonella</i>.</p> <p>Efficacy and confidence level of the treatment is ED_{99.9978} at the 95% confidence level.</p> <p>There is 95% confidence that the treatment according to this schedule prevents emergence of not less than 99.9978% of adults of <i>Cydia pomonella</i>.</p>	The confirmatory trials demonstrated that the stated dose prevented adult emergence from the fruit that were treated containing fifth instar larvae that were identified as the most tolerant life stage.
PT 7	Irradiation treatment for fruit flies of the family Tephritidae (generic)	<p>Minimum absorbed dose of 150 Gy to prevent the emergence of adults of fruit flies.</p> <p>Efficacy and confidence level of the treatment is ED_{99.9968} at the 95% confidence level.</p> <p>There is 95% confidence that the treatment according to this schedule prevents emergence of not less than 99.9968% of adult fruit flies.</p>	The confirmatory trials demonstrated that the stated dose prevented adult emergence from the fruit that were treated containing the most tolerant life stage of a number of economically important species in the Tephritidae.

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PT 8	Irradiation treatment for <i>Rhagoletis pomonella</i>	<p>Minimum absorbed dose of 60 Gy to prevent the development of phanerocephalic pupae of <i>Rhagoletis pomonella</i>.</p> <p>Efficacy and confidence level of the treatment is ED_{99.9921} at the 95% confidence level.</p> <p>There is 95% confidence that the treatment according to this schedule prevents the development of not less than 99.9921% of phanerocephalic pupae of <i>Rhagoletis pomonella</i>.</p>	The confirmatory trials demonstrated that the stated dose prevented the formation of the phanerocephalic pupa in fruit that were treated containing third instar larvae that were identified as the most tolerant life stage.
PT 9	Irradiation treatment for <i>Conotrachelus nenuphar</i>	<p>Minimum absorbed dose of 92 Gy to prevent the reproduction in adults of <i>Conotrachelus nenuphar</i>.</p> <p>Efficacy and confidence level of the treatment is ED_{99.9880} at the 95% confidence level.</p> <p>There is 95% confidence that the treatment according to this schedule prevents the reproduction in not less than 99.9880% of adults of <i>Conotrachelus nenuphar</i>.</p>	The confirmatory trials demonstrated that the stated dose prevented successful reproduction (development of F1 beyond the first instar) in treated adults that were identified as the most tolerant life stage.
PT 10	Irradiation treatment for <i>Grapholita molesta</i>	<p>Minimum absorbed dose of 232 Gy to prevent the emergence of adults of <i>Grapholita molesta</i>.</p> <p>Efficacy and confidence level of the treatment is ED_{99.9949} at the 95% confidence level.</p> <p>There is 95% confidence that the treatment according to this schedule prevents emergence of not less than 99.9949% of adults of <i>Grapholita molesta</i>.</p>	The confirmatory trials demonstrated that the stated dose prevented adult emergence from the fruit that were treated containing fifth instar larvae that were identified as the most tolerant life stage.

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PT 11	Irradiation treatment for <i>Grapholita molesta</i> under hypoxia	<p>Minimum absorbed dose of 232 Gy to prevent oviposition of <i>Grapholita molesta</i>.</p> <p>Efficacy and confidence level of the treatment is ED_{99.9932} at the 95% confidence level.</p> <p>There is 95% confidence that the treatment according to this schedule prevents oviposition of not less than 99.9932% of <i>Grapholita molesta</i>.</p>	The confirmatory trials demonstrated that the stated dose prevented egg laying (oviposition) in adults that emerged from the fruit that were treated containing fifth instar larvae that were identified as the most tolerant life stage.
PT 12	Irradiation treatment for <i>Cylas formicarius elegantulus</i>	<p>Minimum absorbed dose of 165 Gy to prevent the development of F1 adults of <i>Cylas formicarius elegantulus</i>.</p> <p>Efficacy and confidence level of the treatment is ED_{99.9952} at the 95% confidence level.</p> <p>There is 95% confidence that the treatment according to this schedule prevents the development of not less than 99.9952% of F1 adults of <i>Cylas formicarius elegantulus</i>.</p>	The confirmatory trials demonstrated that the stated dose prevented F1 adult production from eggs laid by treated adults that were identified as the most tolerant life stage.
PT 13	Irradiation treatment for <i>Euscepes postfasciatus</i>	<p>Minimum absorbed dose of 150 Gy to prevent the development of F1 adults of <i>Euscepes postfasciatus</i>.</p> <p>Efficacy and confidence level of the treatment is ED_{99.9950} at the 95% confidence level.</p> <p>There is 95% confidence that the treatment according to this schedule prevents the development of not less than 99.9950% of F1 adults of <i>Euscepes postfasciatus</i>.</p>	The confirmatory trials demonstrated that the stated dose prevented F1 adult production from eggs laid by treated adults that were identified as the most tolerant life stage.

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PT 14	Irradiation treatment for <i>Ceratitis capitata</i>	<p>Minimum absorbed dose of 100 Gy to prevent the emergence of adults of <i>Ceratitis capitata</i>.</p> <p>Efficacy and confidence level of the treatment is ED_{99.9970} at the 95% confidence level.</p> <p>There is 95% confidence that the treatment according to this schedule prevents emergence of not less than 99.9970% of adults of <i>Ceratitis capitata</i>.</p>	The confirmatory trials demonstrated that the stated dose prevented adult emergence from the fruit that were treated containing third instar larvae that were identified as the most tolerant life stage.
PT 15	Vapour heat treatment for <i>Bactrocera cucurbitae</i> on <i>Cucumis melo</i> var. <i>reticulatus</i>	<p>[Scope of the treatment</p> <p>This treatment comprises the vapour heat treatment of <i>Cucumis melo</i> var. <i>reticulatus</i> (netted melon) fruit to result in the mortality of eggs and larvae of melon fly (<i>Bactrocera cucurbitae</i>) at the stated efficacy.]</p> <p>Treatment schedule</p> <p>The efficacy and confidence level of the treatment is effective dose (ED)_{99.9889} at the 95% confidence level.</p> <p>There is 95% confidence that the treatment according to this schedule kills not less than 99.9889% of eggs and larvae of <i>Bactrocera cucurbitae</i>.</p>	The confirmatory trials demonstrated that the stated dose killed the treated eggs and third instar larvae that were identified as the most tolerant life stages.

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PT 16	Cold treatment for <i>Bactrocera tryoni</i> on <i>Citrus sinensis</i>	<p>[Scope of the treatment</p> <p>This treatment comprises the cold treatment of fruit of <i>Citrus sinensis</i> (orange) to result in the mortality of eggs and larvae of <i>Bactrocera tryoni</i> (Queensland fruit fly) at the stated efficacy.]</p> <p>Treatment schedule</p> <p>For cultivar “Navel” the efficacy is effective dose (ED)_{99.9981} at the 95% confidence level.</p> <p>For cultivar “Valencia” the efficacy is ED_{99.9973} at the 95% confidence level.</p> <p>For cultivar “Navel”, there is 95% confidence that the treatment according to this schedule kills not less than 99.9981% of eggs and larvae of <i>Bactrocera tryoni</i>.</p> <p>For cultivar “Valencia”, there is 95% confidence that the treatment according to this schedule kills not less than 99.9973% of eggs and larvae of <i>Bactrocera tryoni</i>.</p>	The confirmatory trials demonstrated that the stated dose killed the treated first instar larvae that were identified as the most tolerant life stage.
PT 17	Cold treatment for <i>Bactrocera tryoni</i> on <i>Citrus reticulata</i> × <i>Citrus sinensis</i>	<p>[Scope of the treatment</p> <p>This treatment comprises the cold treatment of fruit of <i>Citrus reticulata</i> × <i>Citrus sinensis</i> (tangor) to result in the mortality of eggs and larvae of <i>Bactrocera tryoni</i> (Queensland fruit fly) at the stated efficacy.]</p> <p>Treatment schedule</p> <p>The efficacy is effective dose (ED)_{99.9986} at the 95% confidence level.</p> <p>There is 95% confidence that the treatment according to this schedule kills not less than 99.9986% of eggs and larvae of <i>Bactrocera tryoni</i>.</p>	The confirmatory trials demonstrated that the stated dose killed the treated first instar larvae that were identified as the most tolerant life stage.

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PT 18	Cold treatment for <i>Bactrocera tryoni</i> on <i>Citrus limon</i>	<p>[Scope of the treatment</p> <p>This treatment applies to the cold treatment of fruit of <i>Citrus limon</i> (lemon) to result in the mortality of eggs and larvae of <i>Bactrocera tryoni</i> (Queensland fruit fly) at the stated efficacy.]</p> <p>Treatment schedule</p> <p>Schedule 1: 2 °C or below for 14 continuous days</p> <p>The efficacy is effective dose (ED)_{99,99} at the 95% confidence level.</p> <p>There is 95% confidence that the treatment according to this schedule kills not less than 99.99% of eggs and larvae of <i>Bactrocera tryoni</i>.</p> <p>Schedule 2: 3 °C or below for 14 continuous days</p> <p>The efficacy is ED_{99,9872} at the 95% confidence level.</p> <p>There is 95% confidence that the treatment according to this schedule kills not less than 99.9872% of eggs and larvae of <i>Bactrocera tryoni</i>.</p>	The confirmatory trials demonstrated that the stated dose killed the treated first instar larvae that were identified as the most tolerant life stage.
PT 19	Irradiation treatment for <i>Dysmicoccus neobrevipes</i>, <i>Planococcus lilacinus</i> and <i>Planococcus minor</i>	<p>Minimum absorbed dose of 231 Gy to prevent the reproduction of adult females of <i>Dysmicoccus neobrevipes</i>, <i>Planococcus lilacinus</i> and <i>Planococcus minor</i>.</p> <p>Efficacy and confidence level of the treatment is ED_{99,99023} at the 95% confidence level.</p> <p>There is 95% confidence that the treatment according to this schedule prevents the reproduction of not less than 99.99023% of adult females of <i>Dysmicoccus neobrevipes</i>, <i>Planococcus lilacinus</i> and <i>Planococcus minor</i>.</p>	The confirmatory trials demonstrated that the stated dose prevented F1 larval development from eggs laid by treated female adults that were identified as the most tolerant life stage.