Lời nói đầu

TCVN 5142:2008 thay thế TCVN 5142:1990;

TCVN 5142:2008 hoàn toàn tương đương với CODEX STAN 229-1993, Rev.1-2003;

TCVN 5142:2008 do Ban kỹ thuật tiêu chuẩn TCVN/TC/F13 *Phương pháp phân tích và lấy mẫu* biên soạn, Tổng cục Tiêu chuẩn Đo lường Chất lượng đề nghị, Bộ Khoa học và Công nghệ công bố.

Phân tích dư lượng thuốc bảo vệ thực vật – Các phương pháp khuyến cáo

Analysis of pesticide residues – recommended methods

1 Giới thiệu

1.1 Phạm vi áp dụng

Các phương pháp phân tích liệt kê dưới đây được tổng kết từ kinh nghiệm thực hành của Uỷ Ban Codex về Dư lượng Thuốc bảo vệ thực vật, được xem xét để xác định dư lượng thuốc bảo vệ thực vật theo quy định. Danh mục đưa ra trong điều 2 chưa để cập hết mọi khía cạnh và có thể áp dụng các phương pháp không có trong danh mục này miễn là chúng có thể cho kết quả chính xác khi sử dụng các phương pháp đó.

1.2 Tiêu chí để lựa chọn phương pháp phân tích

Bất cứ khi nào có thể, việc lựa chọn phương pháp phân tích dư lượng thuốc bảo vệ thực vật được dựa trên các tiêu chí sau đây:

i. sẵn có các tài liệu tạp chí, sổ tay hoặc trên mạng điện tử của các tổ chức tiêu chuẩn quốc tế hoặc quốc gia;

ii. đã có sự nghiên cứu phối hợp của một số phòng thí nghiệm hoặc đã được kiểm tra xác nhận. Việc kiểm tra xác nhận phương pháp đối với phòng thí nghiệm riêng rẽ tối thiểu đã tuân thủ hướng dẫn thực hành tốt về phân tích dư lượng thuốc bảo vệ thực vật.

iii. có khả năng xác định nhiều hơn một loại thuốc bảo vệ thực vật, nghĩa là phương pháp đa dư lượng;

iv. thích hợp cho nhiều loại sản phẩm có nồng độ dưới mức quy định MRLs;

v. có thể áp dụng đối với các phòng thí nghiệm được trang bị các thiết bị, dụng cụ phân tích có sẵn thông thường.

Ưu tiên sử dụng sắc ký khí hoặc sắc ký lỏng hiệu năng cao như là bước tách chiết của các phương pháp. Tuy nhiên, trong các điều kiện xác định, phương pháp sàng lọc quy định trong hướng dẫn thực hành tốt về phân tích dư lượng thuốc bảo vệ thực vật có thể áp dụng. Phương pháp sàng lọc được chỉ ra trong danh mục.

1.3 Áp dụng phương pháp

Trước khi áp dụng phương pháp cần phê chuẩn phương pháp và chứng minh năng lực của người phân tích. Trong quá trình sử dụng, định kỳ cần phải đánh giá xác nhận các đặc tính của phương pháp. Việc phê chuẩn và xác nhận đặc tính của phương pháp được mô tả trong Hướng dẫn thực hành tốt về phân tích dư lượng.

1.4 Tài liệu tham khảo

Các khuyến cáo liên quan khác của Codex về giới hạn tối đa dư lượng thuốc bảo vệ thực vật thuộc phạm vi bắt buộc như sau:

1. Các phương pháp lấy mẫu khuyến cáo để xác định dư lượng thuốc bảo vệ thực vật (tham khảo Codex Alimentarius tập 2, chương 3).

2. Bộ phận hàng hoá áp dụng giới hạn dư lượng tối đa và được dùng để phân tích [tham khảo TCVN 5140:2008 (Volume 2A, Part 1 - 2000)].

3. Các giải thích về giới hạn tối đa về dư lượng thuốc bảo vệ thực vật của Codex (tham khảo Codex Alimentarius tập 2, chương 1).

4. Hướng dẫn thực hành tốt khi phân tích dư lượng thuốc bảo vệ thực vật của Codex (tham khảo Codex Alimentarius phần bổ sung 1, tập 2, chương 4).

Ở 3 đoạn của tài liệu tham khảo có thể tìm thấy:

- Các bài báo chung về phương pháp luận đối với dư lượng thuốc bảo vệ thực vật (đoạn 3.1);
- Sổ tay (đoạn 3.2);
- Các bài báo cụ thể (đoạn 3.3).

Sau mỗi tài liệu tham khảo trong đoạn 3.3, các hợp chất liên quan đến áp dụng các phương pháp phân tích được chỉ ra bằng số CCPR của chúng.

2 Danh mục các phương pháp phân tích

Các **số hiệu** đối với sổ tay và sách được liệt kê trong 3.2, **tên** đối với tác giả (thứ nhất) của các bài báo được liệt kê trong đoạn 3.3.

Số CCPR	Hợp chất	Tài liệu tham khảo
001	aldrin/dieldrin	1a, 1n, 1o, 1p, 2a, 2d, 2f, 3, 4 (XII-5, 6; S8 -10, S12, S19), 5, 7a (5, 6), 7c (S8-10, S12, S19), 8a, 8b, 8c, 8d, 9a (M1,M12),10 Ambrus, Abbott (2), Panel (4), Stijve (2,3)
002	azinphos -metyl	2c, 2d, 2e, 2f, 3, 4 (XII- 6; S5, S8, S19; 63,63A), 7a (6), 7c (S8, S19), 7d (22), 9a (M2, M5, M12), 10 Abbott (1), Ambrus, Panel (3)
003	binapacryl	2a, 2d, 3, 4 (XII- 4,6; S19; 8, 43), 7a (6), 7a (S19), 9b, 10 Baker, PB (2)
004	bromophos	2a, 2c, 2d, 4 (XII- 3, 6; S5, S8 -10, S13, S17, S19; 210, 210A), 6d, 7a (3,6), 7c (S8 -10, S13, S17, S19), 9a (M2, M5, M12), 10 Abbott (1), Ambrus, Bottomley, Panel (7,8), Stijve (7)
005	bromophos - etyl	2a, 2c, 2d, 3, 4 (XII - 3, 6; S8, S13, S17, S19; 263), 6d, 7a (3,6), 7c (S13, S17, S19), 9a (M2, M5, M12), 10 Abbott (1), Ambrus
006	captafol	2d, 2e, 4 (XII - 6; S8, S19, S20; 266, 266A), 6d, 7a (6), 7b, 7c (S8, S19, S20), 9a (M1, M12), 10 Ambrus, Baker, PB (1), Buettler, Gilvydis, Pomerantz
007	captan	2d, 2d, 2e, 3, 4 (XII - 6; S8, S12, S19; 20, 12, 12A), 7a (6), 7b, 7c (S8, S12, S19, S20), 9a (M1, M12),10 Ambrus, Baker, PB (1), Buettler, Gilvydis, Pomerantz
008	carbaryl	1q, 2d, 2e, 2f, 2g, 3, 4 (XII- 6; 100), 6c, 7a (6), 9a (M2, M13),10 Brauckhoff, Chaput, Lawrence (1)
009	cacbon disulfua	9a (M8)
010	cacbon tetraclorua	Mestres (2) Daft, Mestres (2), Panel (5)
011	cacbophenothion	2a, 2c, 2d, 2e, 2f, 3, 3d, 4 (XII- 5, 6; S8, S10, S13, S16, S19), 7a (5,6), 7c (S8, S10, 13, S16, S19), 8b, 8e, 9a (M2, M5, M12),10 Abbott (1), Ambrus
012	clodan	1a, 1o, 2a, 2d, 2f, 3, 4 (XII-5,6; S9, S10, S12, S19), 5, 7a (5,6), 7c (S9, S10, S12, S19), 6c, 6d, 8a, 8b, 8c, 8d
013	clodimeform	2e, 6a, 9a (M4), 10
014	clofenvinphos	2c, 2d, 2e, 2f, 3,4 (XII - 3, 5, 6; S8, S13, S17, S19; 239),5, 7a (3,5,6), 7c (S8,

Số CCPR	Hợp chất	Tài liệu tham khảo
		S13, S17, S19), 9a (M2, M5, M12), 10 Abbott (1), Ambrus, Panel (7,8), Stijve (7)
015	clomequat	6a,9b Sachse, Stijve (5)
016	clobenzilat	2a, 2d, 2e, 3, 4 (XII - 6; S19, 7a (6), 7c (S19),10
017	clopyrifos	1p, 2a, 2c, 2d, 2e, 2f, 3, 4 (XII - 6; S8, S9, S13, S19), 5, 7a(6), 7c (S8, S9, S13, S19), 8b, 8e, 9a (M2, M5, M12),10 (Ambrus, Stijve (7))
018	coumaphos	2c, 2d, 2e, 3, 4 (XII - 6; S19), 7a (6), 7c (S19), 8b, 8e, 9a (M2, M5, M12) Ambrus, Stijve (7)
019	crufomat	2d, 2e, 2f, 4 (XII - 6; S19), 7a (6), 7c (S19), 8b, 8e Stijve (7)
020	2,4 - D	2b, 2f, 3, 4 (27,27A-380), 5, 7d (27A-28A), 9a (M6) Ebing, Specht (1)
021	DDT	1a, 1n, 1o, 1p, 2a, 2d, 2f, 3, 4 (XII - 4, 5,6; S1-5, S8 -10, S12, S19), 5, 6c, 7a (4,5,6), 7c (S8- 10, S12, S19), 8a, 8b, 8c, 9a (M1, M12), 10 Abbott (2), Ambrus, Bottomley, Panel (4), Stijve (2,3), Veierov
022	diazion	1a, 2a, 2c, 2d, 2f, 3, 4 (XII - 5, 6; S5, S8, S10, S13, S17, S19; 35A, 35B), 6c, 7a (5,6), 7c (S8, S10, S13, S17, S19), 8e, 9a (M2, M5, M12), 10 Abbott (1), Ambrus, Bottomley, Panel (7), Stijve (7)
023	1,2-dibromoetan	1d, 8f, 9a (M8) Daft, Heikes, Mestres (2), Panel (5), Rains
024	1,2-dicloetan	1d, 9a (M8) Daft, Mestres (2), Panel (5)
025	diclovos	2c, 2d, 2e, 2f, 3, 4 (XII - 3, 6; S5, S8, S13, S17, S19; 200), 7a (3,6), 7c (S13, S17, S19), 8b, 8e, 9a (M2, M5),10 Abbott (1), Ambrus, Bottomley, Panel (1, 3, 7), Stijve (7)
026	dicofol	2a, 2d, 2f, 3, 4 (XII - 6; S8, S9, S12, S19; 69, 69A, 7a (6), 7c (S8, S9, S12, S19), 9a (M1, M12), 10
027	dimethoat	2c, 2d, 2f, 3, 4 (XII - 3, 6; S5, S8, S13, S17, S19; 42, 236), 5, 7a (3,6), 7c (S8, S13, S17, S19), 9a (M5, M12),10 Abbott (1), Ambrus, Panel (3,7, 8), Stijve (7)
028	dioxathion	2c, 2d, 4 (XII - 6; S8, S13, S19), 7a (6), 7c (S8, S9, S19), 8e, 9a (M2, M5, M12), 10 Abbott (1), Stijve (7)

Số CCPR	Hợp chất	Tài liệu tham khảo
029	diphenyl	2d, 4 (XII - 6; 256A), 7a (6), 10 Farrow, Kitada, Lord, Mestres (1), Player, Pyysalo
030	diphenylamin	2d, 2se, 4 (XII - 6), 7a (6), 10 Allen (1), Luke
031	diquat	2e, 4 (37), 6d Calderbank (2), King
032	endosulfan	1b, 2a, 2d, 2f, 3, 4 (XII - 5, 6; S5, S8, S12, S19, 50), 5, 7a (5,6), 7c (S9 - 10, S12, S19), 8a, 8b, 8c, 8d, 9a (M1, M12), 10 Abbott (1), Ambrus
033	andrin	1b, 1o, 2a, 2d, 2f, 3, 4 (XII - 5, 6; S5, S9, S10, S12, S19), 5, 7a (5,6), 7c (S9 - 10, S12, S19), 8a, 8b, 8c, 8d, 9a (M1, M12), 10 Abbott (2), Ambrus, Panel (4)
034	ethion	1a, 2a, 2c, 2d, 2f, 3, 4 (XII - 3, 5, 6; S8, S9, S13, S17, S19), 7a (3, 5, 6), 7c (S8, S9, S13, S17, S19), 8e, 9a (M2, M5, M12), 10 Abbott (1), Ambrus, Stijve(7)
035	etoxyquin	2d, 2e, 4 (XII - 6; 500) Winell
036	fenclophos	1a, 2a, 2c, 2d, 2f, 3, 4 (XII - 3, 5, 6; S8-10, S13, S17, S19), 7a (3, 5, 6), 7c (S8 - 10, S13, S17, S19), 8b, 8e, 9a (M2, M5), 10 Abbott (1), Ambrus, Panel (7, 8), Stijve(7)
037	fenitrothion	2a, 2c, 2d, 2f, 3, 4 (XII - 3, 6; S5, S8, S13, S17, S19; 58), 6a, 8e, 9a (M2, M5), 10 Abbott (1), Ambrus, Bottomley, Desmarchelier, Panel (7, 8), Stijve (7)
038	fensulfothion	2c, 2d, 2e, 3, 4 (XII - 3, 6; S8, S13, S16, S17, S19), 6a, 7a (3, 6), 7c (S8, S13, S16, S17, S19), 9a (M2, M5), 10
039	fenthion	2c, 2d, 2e, 2f, 3, 4 (XII - 3, 6; S5, S8, S13, S16, S17, S19), 7a (3, 6), 7c (S8, S13, S16, S17, S19), 8e, 9a (M2, M5), 10 Abbott (1), Ambrus, Hill
040	fentin	2e, 4 (S24; 55A, 55B) 6e Baker, PG (1)
041	folpet	2a, 2c, 2d, 3, 4 (XII - 6; S8, S12, S19, S20, 91, 91A), 7a (6), 7b, 7c (S8, S12, S19, S20), 9a (M1, M12), 10 Ambrus, Baker, PB (1), Buettler, Gilvydis, Pomerantz
042	formothion	2d, 4 (XII - 6; S5, S8, S19, 236A), 6b, 7a (6), 7c (S8, S19), 9a (M2, M5, M12), 10 Abbott (1), Ambrus
043	heptaclo	1a, 1n, 1o, 2a, 2d, 2f, 3, 4 (XII - 1, 5, 6; S 1 - 4, S8 - 10, S12, S19), 5, 6c, 6d,

Số CCPR	Hợp chất	Tài liệu tham khảo
		7a (5, 6), 7c (S8 - 10, S12, S19), 8a, 8b, 8c, 8d, 9a (M1, M12), 10 Abbott (2) Ambrus, Stijve (2,3), Veierov
044	hexaclobenzen	1k, 1o, 2a, 2d, 3, 4 (XII - 1, 5, 6; S9, S10, S12, S19), 5, 6c, 7a (1, 5, 6), 7c (S9, S10, S12, S19), 8a, 8b, 8c, 8d, 9a (M1, M12), 10 Ambrus, Panel (4), Stijve (2,3), Veierov, Zimmerli
045	hydro xyanua	2e, 4 (11), 9b Darr
046	hydro phosphit	2e, 4 (13), 9a (M8) Scudamore (2)
047	bromua vô cơ	2e, 4 (S18; 149), 7c (S18), 9b Panel (2), Roughan, Stijve (1,4), VanWees
048	lindan	1a, 1o, 2a, 2d, 3, 4 (XII - 5, 6; S 1 - 5, S8 - 10, S12, S19), 5, 7a (5, 6), 7c (S8 - 10, S12, S19), 8a, 8b, 8c, 8d, 9a (M1, M12), 10 Abbott (2), Ambrus, Panel (4), Stijve (2,3), Veierov
049	malathion	1a, 2a, 2c, 2d, 2f, 3, 4 (XII - 3, 5, 6; S5, S8, S10, S13, S17, S19; 72), 7a (3, 5, 6), 7c (S8, S10, S13, S17, S19), 8a, 9a (M2, M5, M12), 10 Abbott (1), Ambrus, Bottomley, Desmarchelier, Panel (1,3, 7, 8), Stijve (7).
050	mancozeb	see 105: dithiocarbamates
051	methidathion	2a, 2c, 2d, 2e, 3, 4 (XII - 6; S5, S8, S13, S19; 232), 6b, 7a(6), 7c (S8, S13, S19), 9a (M2, M5, M12), 10 Ambrus,
052	metylbromide	9a (M8) Mestres (2), Panel (5)
053	mevinphos	2c, 2d, 2f, 3, 4 (XII - 3, 6; S5, S8, S13, S17, S19; 93), 7a (3, 6), 7c (S8, S13, S17, S19), 9a (M2, M5, M12), 10 Abbott (1), Ambrus
054	monocrotophos	1p, 2c, 2d, 2e, 2f, 4 (XII - 6; S19), 7c (S19), 9a (M2, M5), 10 Ambrus
055	omethoate	1p, 2c, 2d, 4 (XII - 6; S13, S17, S19; 236), 5, 7a (6), 7c (S13, S17, S19), 9a (M2, M5), 10 Abbott (1), Panel (3)
056	ortho - phenylphenol	2d, 2e, 10 Farro, Kitada, Lord, Mestres (1), Player, Pyysalo
057	paraquat	2e, 4 (134), 6d, 7a Calderbank (1), Khan, King, Iott
058	parathion	1a, 2a, 2c, 2d, 2f, 3, 4 (XII - 3, 4, 5, 6; S5, S8, S10, S13, S17, S19; 87A, 87B),

Số CCPR	Hợp chất	Tài liệu tham khảo
		7a (3, 4, 5, 6), 7c (S8, S10, S13, S17, S19), 8e, 9a (M2, M5, M12), 10 Abbott (1), Ambrus, Panel (3)
059	parathion-metyl	1a, 2a, 2c, 2d, 2f, 3, 4 (XII - 3, 5, 6; S5, S8, S13, S17, S19; 88A, 88B), 7a (3, 5, 6), 7c (S8, S13, S17, S19), 8e, 9a (M2, M5, M12), 10 Abbott (1), Ambrus, Panel (3)
060	phosalon	2a, 2c, 2d, 2e, 3, 4 (XII - 5, 6; S8, S19), 5, 6a, 7a (5, 6), 7c (S8, S19), 9a (M2, M5, M12), 10 Abbott (1), Ambrus, Sijve (7)
061	phosphamidon	2c, 2d, 2e, 3, 4 (XII - 6; S5, S13, S19), 7a (5, 6), 7c (S8, S19), 9a (M2, M5, M12), 10 Abbott (1), Ambrus, Sijve (7)
062	piperonyl butylat	2e, 4 (XII - 6; S19, S22; 163), 7a (6), 7c (S19), 9b Krause (2)
063	pyrethrins	2a, 2d, 2e, 4 (XII - 6; S19, S22), 6b, 7a (6), 7c (S19), 9b
064	quintozen	2a, 2d, 2f, 3, 4 (XII - 4, 5, 6; S8, S9, S12, S19; 99), 7a (4, 5, 6), 7c (S8, S19, S12, S19), 9a (M2, M5, M12), 10
065	thiabendazol	2a, 2e, 2h, 4 (XII - 6; 256A, 256B), 7d (256A, 256B), 8g, 9a (M3), 10 Farrow, Kitada, Mestres (1,3), Rajzman, Yamada
066	trichlorfon	2c, 2d, 2e, 2f, 3, 4 (XII - 6; S5, S13, S19, 112), 5, 7a (6), 7c (S13, S19), 8e, 9a (M2, M5, M12) Abbott (1), Ambrus, Bottomley
067	xyhexatin	2e, 4 (S24), 6a, 9b Moellhoff (2)
068	azinphos - etyl	2c, 2d, 4 (XII - 3, 5, 6; S5, S8, S13, S17, S19; 62, 62A), 7a (3, 5, 6), 7c (S8, S13, S17, S19), 9a (M2, M5, M12), 10 Abbott (1), Ambrus
069	benomyl	see 072: carbendazim
070	bromopropylat	2a, 2d, 4 (XII - 6; S19), 7a (6), 7c (S19), 9a (M12), 10 Stijve (6)
071	campheclo	2a, 2d, 4 (XII - 5, 6; S9, S19), 7a (5, 6), 7c (S9, S19 Stijve (2)
072	carbendazim	2e, 2h, 4 (261, 378), 6a, 6d, 7d (261, 370, 378), 9a (M3), 10 Ambrus, Farrow, Mestres (3), VanHaver
073	demeton - S -metyl	2d, 2f, 4 (XII - 6; S5, S13, S16, S19), 7a (6), 7c (S13, S16, S19) 9a (M2, M5), 10 Abbott (1), Ambrus, Hill, Wagner

Số CCPR	Hợp chất	Tài liệu tham khảo
074	disulfoton	2a, 2c, 2d, 2e, 2f, 3, 4 (XII - 3, 6; S5, S8, S13, S16, S17, S19), 7a (3, 6), 7c (S8, S13, S16, S19, S19), 8e, 9a (M2, M5) Abbott (1), Ambrus, Panel (7)
075	propoxur	1e, 2d, 2g, 4 (XII - 6; S19, S25; 216), 6a, 7a (6), 7c (S19), 9a (M2, M13), 10 Ambrus, Brauckhoff, Chaput, Lawrence(1)
076	thiometon	2d, 4 (XII - 6; S13), 6b, 7a (6), 7c (S13), 9a (M2, M5, M10, M12) Abbott (1), Ambrus, Hill
077	thiophanat - metyl	2e, 2h, 4 (261), 5, 7d (261, 370, 378), 9a (M2, M5, M10) Ambrus, Mestres (3), VanHaver
078	vamidothion	4 (XII - 3, 6; S17), 6a, 7a (3, 6), 7c (S17), 9a (M2, M5, M10)
079	amitrol	2e (4a), 7d (4a) Galoux, Lokke (1), v.d.Poll
080	chinomethionat	2d, 2e, 4 (XII -6; S19; 189), 7a (6), 7c (S19), 9b,10 Ambrus, Francoeur,Karause (1), Tjan
081	clorothalonil	2a, 2d, 2e, 3, 4 (XII - 6; S19), 6b, 7a (6), 7c (S19), 9a (M1, M12), 10 Ambrus, Lokke (2)
082	diclofluanit	2a, 2d, 4 (XII - 6; S8, S12, S19; 203; 203A, 203 - (371)), 7a (6), 7c (S8, S12, S19), 7d (203, 371, 203A, 371A), 9a (M1, M12), 10 Ambrus, Lokke (2), Brennecke (4)
083	dicloran	2d, 3, 4 (XII - 6; S19), 7a (6), 7c (S19), 9a (M1), 10 Ambrus
084	dodin	2e Newsome (1)
085	fenamiphos	2c, 2d, 2e, 4 (XII - 6; S8; S16; S19), 7a (6), 7c (S6, S19), 9a (M5, M12) Hill
086	pirimiphos - metyl	2a, 2c, 2d, 2e, 4 (XII - 6; S8, S19; 476), 6b, 7a (6), 7c (S8, S19), 9a (M2, M5, M12), 10 Ambrus, Desmarchelier, Panel (7, 8), Stijve (7)
087	dinocap	2a, 2d, 2e, 4 (XII - 6; S19; 68), 7a (6), 7c (S19), 9a (M9), 9b Ambrus
088	leptophos	withdrawn
089	sec-butylamin	2e, 6b Day, Hunter, Scudamore (1)

Số CCPR	Hợp chất	Tài liệu tham khảo
090	clopyrifos - metyl	2c, 2d, 4 (XII - 6; S8, S19), 7a (6), 7c (S19), 9a (M2, M5), 10 Ambrus, Bottomley, Desmarchelier, Panel (4,8), Stijve (7)
091	xynofenphos	2d, 4 (XII - 6; S8; S19), 7a (6), 7c (S19), 9a (M2, M5), 10
092	dementon	2c, 2d, 2e, 4 (XII - 6; S5, S16), 7a (6), 7c (S16), 9a (M5) Abbott (1)
093	boiresmethrin	6c, 6d, 9a M(11) Baker, PG (2), Bottomley
094	methomyl	1q, 2d, 2e, 2g, 4 (299), 6a, 7b, 9a (M13) Ambrus, Chaput
095	axephat	1p, 2c, 2d, 2e, 4 (XII - 6; S19; 358), 6a, 7a (6), 7b, 7c (S19), 9a (M5, M12), 10
096	carbofuran	1e, 1q, 2e, 2g, 3, 4 (XII - 6; S25), 6a, 7a (6), 7d (658, 344), 9a (M13), 10 Ambrus, Brauckhoff, Chaput, Lawrence (1), Moellhoff (1), Leppert (1,2)
097	cartap	Official Gazette
098	dialifos	2a, 2d, 2e, 4 (XII - 6; S19; 281), 7a (6), 7c (S19), 9a (M2, M5, M12), 10
099	edifenphos	2d, 4 (XII - 6; S19), 7a (6), 7c (S19)
100	methamidophos	1p, 2c, 2d, 3, 4 (XII - 6; S19; 358, 365), 5, 6a, 7a (6), 7c (S19), 9a (M5), 10
101	pirimicarb	2d, 4 (XII - 6; S19; 309), 5, 6a, 7b, 10
102	maleic	1m, 4 (297) Lane, Newsome (3)
103	dainozit	2c, 2d, 4 (XII - 6), 7a (6), 9a (M2, M5, M12), 10 Ambrus
104	dithiocarbamat	2e, 6b Allen (2), Newsome (5), Saxton, Wright, Conditt
105	dithiocarbamat	2e, 3, 4 (S15, S21), 7c(S2), 9b Newsome (2), Panel (6), Ott
106	ethephon	2e, 9b Cochrane
107	ethiofencarb	2d, 2g,4(S25; 393), 9a(M13), 10
108	etylen thioure	lj, 4 (389), 7b, 9b Panel (9), Hirvi, Otto, Rosenberg
109	fenbutatin oxit	2e, 4(S24), 6d

Số CCPR	Hợp chất	Tài liệu tham khảo
		Sano
110	imazalil	2d, 2e, 4 (XII-6; S19)
111	iprodion	2c, 2d, 2e, 4 (XII-6; S8, S19, 419), 6e, 7a (6), 7c (S8, S19), 9a (M1, M12), 10
112	phorat	2a, 2c, 2d, 2e, 4 (XII-3, 6; S8, S13, S16, S17 S19), 7a (3, 6), 7c (S8, S13, S16, S17, S19), 9a (M2, M5) Abbott (1), Ambrus, Hill
113	propargit	2a, 2d, 3, 4 (XII- 6), 6a, 7a (6), 9a (M1) Ambrus
114	guazatin	Kobayashi
15	tecnazen	2a, 2d, 2e, 3, 4 (XII-6; S8, S12, S19; 108), 7a (6), 7c (S8, S12, S19), 9a (M1), 10
116	triforin	2e, 4(338), 6d, 9b Bourke, Newsome (4)
117	aldicarb	1q, 2e, 2g, 4(XII-6; 250),6a, 7a, (6), 7c(S8, S12, S19), 9a(M1), 10
118	xypermethrin	2a, 2d, 4(XII-6; S19, S23), 6g, 7a(6), 7c(S19), 9a(M11), 10 Ambrus, Baker, PG (2), Bottomley
119	fenvalereta	2a, 2d, 2e, 4(XII-6; S19, S23), 6g, 7a(6), 7c(S19), 9a(M11), 10 Ambrus, Baker, PG (2), Bottomley
120	permethrin	2a, 2d, 4(XII-6; S19, S23), 6g, 7a(6), 7c(S19), 9a(M11), 10 Ambrus, Baker, PG (2), Bottomley
121	2,4,5-T	2b, 4(XII-6; 105), 6c, 7a(6), 9a(M6) Ebing, Lokker (3), Specht (1)
122	amitraz	2e, 4 (XII-6), 7a (6), 9b
123	etrimfos	2a, 2c, 2d, 4 (XII-6; S8, S19), 7a(6), 7c(S19), 6e, 9a (M2, M5) Ambrus, Bottomley, Panel (7,8)
124	mecarbam	2c, 2d, 4 (XII-6; S19), 6b, 7a (6), 7c (S19), 9a (M2), 10 Abbott
125	methacrifos	4 (XII-6), 7a (6) Ambrus, Desmarchelier, Panel (7, 8)
126	oxamyl	1q, 2e, 2g, 4 (XII-6; 441), 5, 7a (6), 7d (441), 9a (M13), 10 Ambrus
127	phenophrin	4 (XII-6), 7a (6), 9 Baker, PG (2), Bottomley

Số CCPR	Hợp chất	Tài liệu tham khảo
128	phenthoat	2a, 2c, 2d, 4 (XII-6; S19), 6b, 7a (6), 7c (S19), 9a (M11), 10 Ambrus
129	azocyclotin	4 (S24) Moellhoff (2)
130	diflubenzuron	2e, 6d, 6f, 9a (M4) Austin
131	isofenphos	2a, 2c, 2d, 2e, 4 (XII-6; S8), 7a (6), 9a (M5, M12), 10
132	methiocarb	1q, 2d, 2g, 4 (79, 79a), 9a (M2, M13), 10 Chaput
133	triadimefon	2d, 2e, 4 (XII-6; S8, S19; 425- (605)), 7a (6), 7c (S8, S19), 7d (613, 425, 605), 10 Ambrus, Brennecke (2), Ragab
134	aminocarb	2d, 10 Brauckhoff
135	deltamethrin	2a,2d, 4 (XII-6; S19, S23), 6g, 7a (6), 7c (S19), 9a (M11) Ambrus, Beker, PG (2), Bottomley
136	procymidone	2a, 2d, 2e, 4 (XII-6; S8, S19), 7a (6), 7c (S8, S19), 10
137	bendiocarb	2d, 2g, 6d,4 (XII-6), 7a(6), 9a (M2, M13) Ambrus
138	metalaxyl	2c, 2d, 2e, 4 (XII-6; S8, S19; 517), 7a (6), 7b, 7c (S19), 9a (M4), 10 Ambrus
139	butocarboxim	2g, 9a (M13) Aharonson, Brauckhoff, Li, Musskat
140	nitrofen	1a, 2a, 2d, 2e, 4 (XII-6; S19; 340), 6d, 7a (6), 7b, 7c (S19) Adler, Ambrus, Yu
141	phoxim	2d, 4 (XII-6; S19, 307), 7a (6), 7c (S19), 9a (M2, M12) Ambrus
142	prochloraz	2d Maclaine Pont, Somerville
143	triazopho	2c, 2d, 4 (XII-4,6; S8, S19, 501), 6d, 7a (6), 7c (S19), 9a (M2, M5, M12), 10 Ambrus
144	bitertanol	2d, 4 (XII-6; S19, 613; 613A), 7a (6), 7c (S19), 7d (613A, 426, 605) 9a (M12) Brennecke
145	carbusulfan	2d, 4 (658 - (344)) Leppeert (1,2)
146	xyhalothrin	2d, 6g

Số CCPR	Hợp chất	Tài liệu tham khảo
147	methopren	2e, 6d
148	propamocarb	Gentile
149	ethoprofos	2c, 2d, 2e, 4 (XII-6; S8, S19), 7a (6), 7b, 7c (S19),9a (M2, M5)
150	propylen thioure	Lembo, Nitz
151	dimethipin	2e
152	flucythrinat	2d, 2e
153	pyrazophos	2d, 4 (XII-4,6; S8, S19; 328), 6d, 7a (6), 7b, 7c (S19), 9a (M2, M5, M12), 10
154	thiocarb	2g
155	benalaxyl	4 (S19)
156	clofentezin	Bichi, Snowdon
157	xyfluthrin	2d, 4 (S23), 9a (M11)
158	glyphosat	2e, 4 (405), 6 h, 7d (405) 9b Cowell, Tuinstra, Wigfield
159	vinclozolin	2a, 2d, 4 (XII-6; S8, S19,; 412), 9a (M1, M12)
160	propiconazol	2d, 4 (S19; 624), 7d (624)
161	paclobutrazol	2d Reed
162	tolylfluanit	2d, 4 (XII -6; S8; S19 : 371; 203- (371)), 7c (S8, S19), 7d (203A, 371A) ,9a (M1, M12) Brennecke (4) Specht (2), Anderson
163	anilazin	4 (XII-6; S19 : 186), 7c (S19), 7d (186) 2d,2e Lawrence(2), Brennecke(5)
164	demeton-S-metyl-sulphon	4 (XII-6; S16, S19), 7c (S16), 9a (M5), 2d, 2e Andersson, Thornton, Wagner
165	flusilazol	2d, 4(S19) (only parent compuund)
166	oxydemeton-metyl	4 (XII-6; S16, S19), 7c (S16), 9a (M5) 2c, 2d,2e Thornton, Wagner
167	terbufos	4 (S8; S19), 9a (M5) (only parent compuund) 2c, 2d,2e Westcott
168	triadimenol	4 (XII-6, S19, 425 – (605)) 7a (6), 7c (S19), 9a (M12), 2d Allmendinger, Andersson, Brennecke (2), Ragab, Mendes
169	xyromazin	2e Cabras, Bardalaye
170	hexaconazol	2d, 11
171	profenofos	2c, 2d, 2e Andersson

Số CCPR	Hợp chất	Tài liệu tham khảo
172	bentazon	2e Cessna, Hogendoorn
173	buprofezin	Nishizawa JAOAC accepted for publication, Ishii (1)
174	cadusafos	2d
175	glufosinat-mamonium	4 (651), 7d (651)
176	hexathiazox	2e
177	abemectin	2e Prabhu, Vuik
178	befentrin	2a, 2e
179	xycloxydim	
180	dithianon	Beker, Kadenczki
181	myclobutanil	2e
182	penconazol	2d
183	propham	2d, 4(s11), 6e (343 - 350) 7c (S11)
184	etofenprox	
185	fenpropathrin	2, 7d (S23) Nakamura
186	metiram	See 105: dithiocarbamater
187	clethodim	
188	fenpropimorph	Kadenczki, v. Zoonen, Dieckmann, Lafuente (1,2), Tadeo
189	tebuconazol	7c (S19) Brennecke (6), Allmendinger, Maasfeld
190	teflubenzuron	
191	tolcofos-metyl	4 (S19), 7a (6), 7c (S19), 7d (S8) Becker, Ishii, Stan, Philips

3 Tài liệu tham khảo

3.1 Các bài báo chung

Các bài báo hoặc sách liên quan đến các vấn đề về phân tích dư lượng thuốc bảo vệ thực vật (xem thêm sổ tay đã được viện dẫn trong đoạn 3.2).

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(a) 970.52

(b) 976.23

(d) 977.18

(e) 975.40

(j) 978.16

(k)	977.19
(l)	960.43
(m)	963.24
(n)	983.21
(o)	984.21
(p)	985.22
(q)	985.23

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		2nd edition	3rd edition
(a)	Vol. I	Table 201-A and sections, 211.1, 212.1, 231.1, 232.1 and 252	nonfat foods: Section 303 fatty foods: Section 304, E1-E5+C1-C4
(b)	Vol. I,	Table 201-D and section 221.1	Section 402
(c)	Vol. I,	Table 201-H and section 232.3	[method not in PAM I 3rd edition]
(d)	Vol. I,	Table 201-I and section 232.4	Section 302 E1-E4, no cleanup
(e)	Vol. II,	Method under compound name (when in this reference several methods have been given, they are generally listed in order of preference)	
(f)	Vol. I,	Table 651-A and sections 650 and 651	[not in PAM I 3rd edition]
(g)	Vol. I,	Table 242.2-1 and section 242.2	Section 401
(h)	Vol. I,	Section 242.3	Section 404

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(b) Vol. I, Section Individual Pesticide Residue Analytical Methods

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