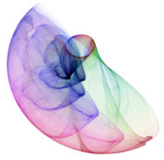


2012년 양돈 질병 세균 항생제 내성 검사 결과

Obong Kwon

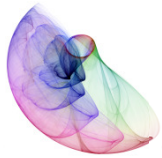
Animal clinical evaluation center
Optipham, Family company of Easybio Group
kob@optipham.co.kr
043-249-7522



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- I. 항생제 내성/감수성 기준 및 용어 설명
- II. 호흡기 질병 4종 항생제 내성 검사 결과
- III. 소화기 질병 3종 항생제 내성 검사 결과





항생제 감수성/내성 기준

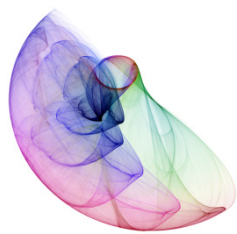
• 항생제 종류 및 기준(디스크 확산법 기준으로 검역원 자료 참조)

약제명	감수성	효과 중간	내성	약제명	감수성	효과 중간	내성
Amikacin(AK30)	17	13	6	Gentamicin(CN10)	17	13	6
Amoxicillin(AML30)	17	13	6	Linsmycin(LS109)	17	13	6
Amoxicillin/ Clavulanic acid(AMC30)	17	13	6	Neomycin(N30)	17	13	6
Cefazolin(KZ30)	17	14	6	Penicillin G(P10)	15	13	6
Tilmicosin(TIL15)	17	14	6	Tiamulin H.Fumarate(Ti25)	17	13	6
Colistin(CT10)	11	9	6	Streptomycin(S10)	15	11	6
Enrofloxacin(ENR5)	18	13	6	Tetracycline(T30)	23	18	6
Florfenicol(FFC25)	18	13	6	Trimethoprim/ Sulfamethoxazole(STX25)	18	15	6
Ceftiofur sodium(C2.5)	17	12	6	Tylosin tartrate(Ty25)	18	13	6

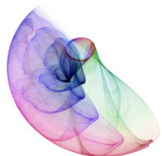
• 항생제 종류 및 기준

Sensitive(감수성)	감수성이 있다는 의미로 치료 효과를 기대할 수 있음.
Resistant(내성)	내성이 있다는 의미로 치료효과 없음.
Intermediate(효과 중간)	감수성과 내성의 중간 정도.





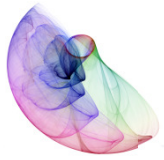
* 호흡기 질병 4종
* 소화기 질병 3종



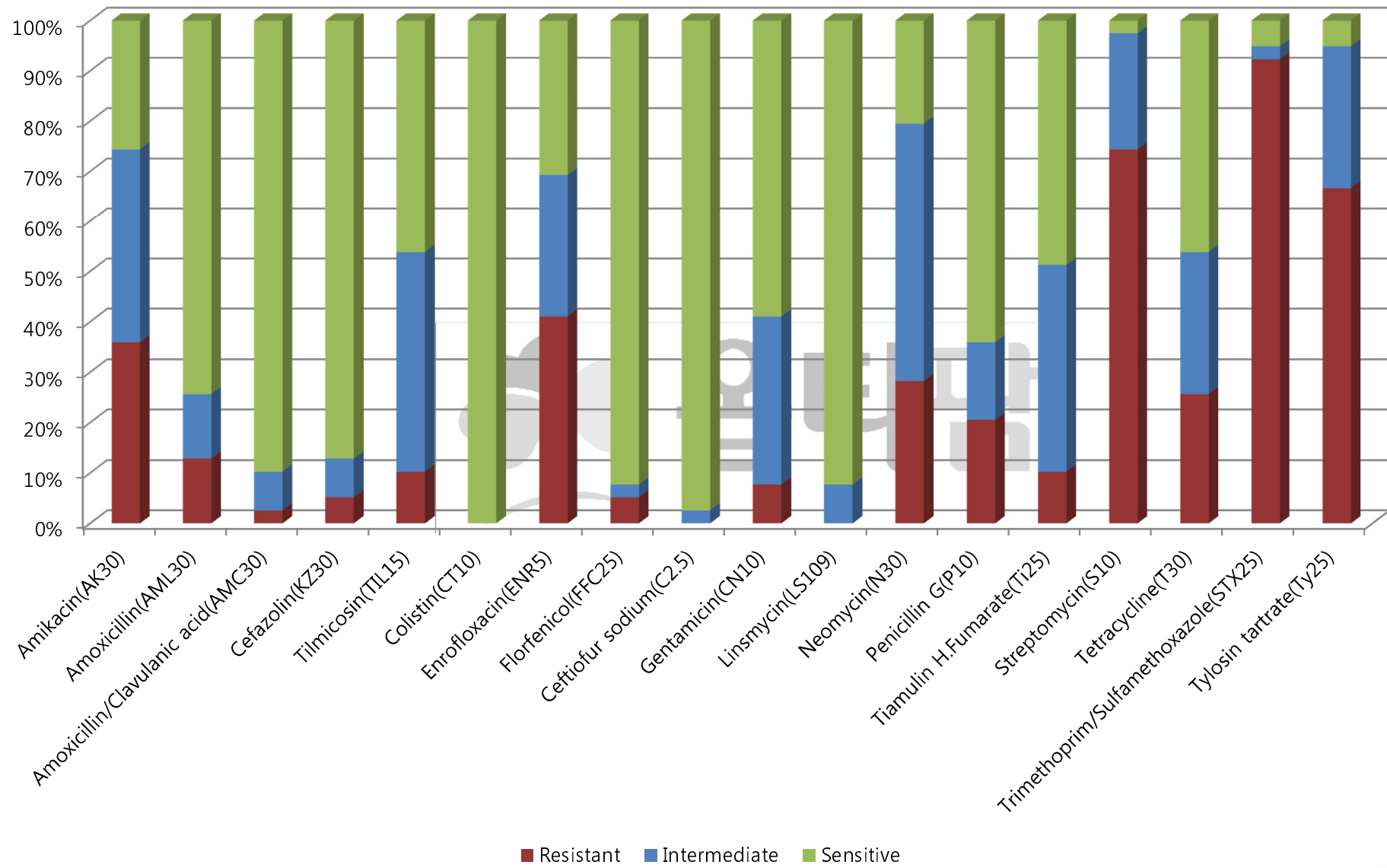
Haemophilus parasuis

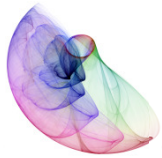
약 제 명	농장수	Test	항생제 내성 검사 결과					
			Resistant		Intermediate		Sensitive	
			Test	%	Test	%	Test	%
Amikacin(AK30)	32	39	14	35.9%	15	38.5%	10	25.6%
Amoxicillin(AML30)			5	12.8%	5	12.8%	29	74.4%
Amoxicillin/ Clavulanic acid(AMC30)			1	2.6%	3	7.7%	35	89.7%
Cefazolin(KZ30)			2	5.1%	3	7.7%	34	87.2%
Tilmicosin(TIL15)			4	10.3%	17	43.6%	18	46.2%
Colistin(CT10)			0	0.0%	0	0.0%	39	100.0%
Enrofloxacin(ENR5)			16	41.0%	11	28.2%	12	30.8%
Florfenicol(FFC25)			2	5.1%	1	2.6%	36	92.3%
Ceftiofur sodium(C2.5)			0	0.0%	1	2.6%	38	97.4%
Gentamicin(CN10)			3	7.7%	13	33.3%	23	59.0%
Linsmycin(LS109)			0	0.0%	3	7.7%	36	92.3%
Neomycin(N30)			11	28.2%	20	51.3%	8	20.5%
Penicillin G(P10)			8	20.5%	6	15.4%	25	64.1%
Tiamulin H.Fumarate(Ti25)			4	10.3%	16	41.0%	19	48.7%
Streptomycin(S10)			29	74.4%	9	23.1%	1	2.6%
Tetracycline(T30)			10	25.6%	11	28.2%	18	46.2%
Trimethoprim/ Sulfamethoxazole(STX25)			36	92.3%	1	2.6%	2	5.1%
Tylosin tartrate(Ty25)			26	66.7%	11	28.2%	2	5.1%





Haemophilus parasuis

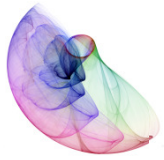




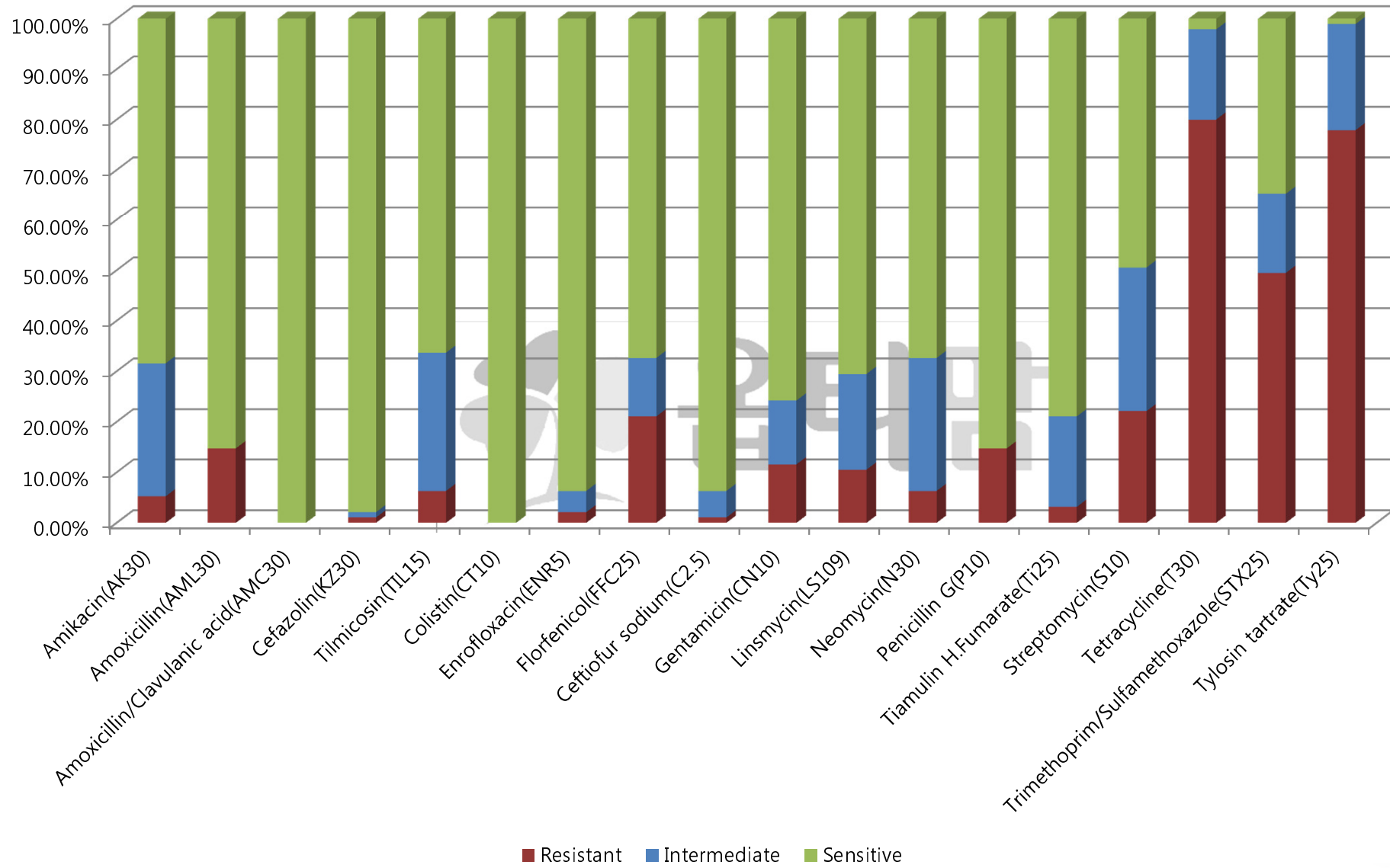
Actinobacillus pleuropneumoniae

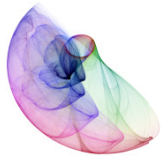
약 제 명	농장수	Test	항생제 내성 검사 결과					
			Resistant		Intermediate		Sensitive	
			Test	%	Test	%	Test	%
Amikacin(AK30)	61	95	5	5.3%	25	26.3%	65	68.4%
Amoxicillin(AML30)			14	14.7%	0	0.0%	81	85.3%
Amoxicillin/ Clavulanic acid(AMC30)			0	0.0%	0	0.0%	95	100.0%
Cefazolin(KZ30)			1	1.1%	1	1.1%	93	97.9%
Tilmicosin(TIL15)			6	6.3%	26	27.4%	63	66.3%
Colistin(CT10)			0	0.0%	0	0.0%	95	100.0%
Enrofloxacin(ENR5)			2	2.1%	4	4.2%	89	93.7%
Florfenicol(FFC25)			20	21.1%	11	11.6%	64	67.4%
Ceftiofur sodium(C2.5)			1	1.1%	5	5.3%	89	93.7%
Gentamicin(CN10)			11	11.6%	12	12.6%	72	75.8%
Linsmycin(LS109)			10	10.5%	18	18.9%	67	70.5%
Neomycin(N30)			6	6.3%	25	26.3%	64	67.4%
Penicillin G(P10)			14	14.7%	0	0.0%	81	85.3%
Tiamulin H.Fumarate(Ti25)			3	3.2%	17	17.9%	75	78.9%
Streptomycin(S10)			21	22.1%	27	28.4%	47	49.5%
Tetracycline(T30)			76	80.0%	17	17.9%	2	2.1%
Trimethoprim/ Sulfamethoxazole(STX25)			47	49.5%	15	15.8%	33	34.7%
Tylosin tartrate(Ty25)			74	77.9%	20	21.1%	1	1.1%





Actinobacillus pleuropneumoniae

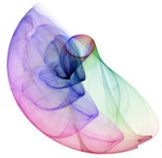




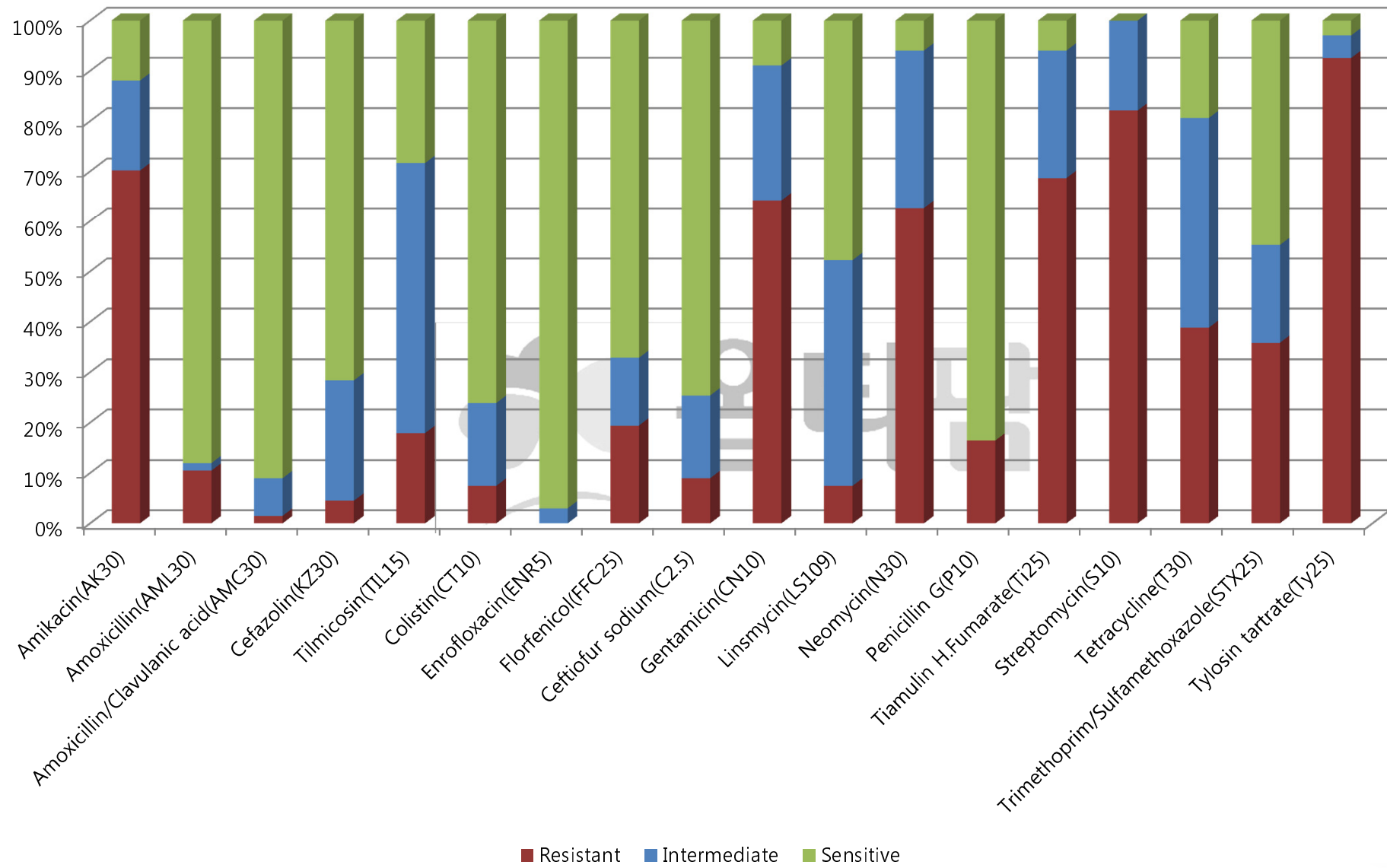
Pasteurella multocida

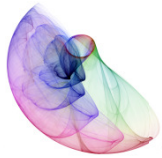
약 제 명	농장수	Test	항생제 내성 검사 결과					
			Resistant		Intermediate		Sensitive	
			Test	%	Test	%	Test	%
Amikacin(AK30)	50	67	47	70.1%	12	17.9%	8	11.9%
Amoxicillin(AML30)			7	10.4%	1	1.5%	59	88.1%
Amoxicillin/ Clavulanic acid(AMC30)			1	1.5%	5	7.5%	61	91.0%
Cefazolin(KZ30)			3	4.5%	16	23.9%	48	71.6%
Tilmicosin(TIL15)			12	17.9%	36	53.7%	19	28.4%
Colistin(CT10)			5	7.5%	11	16.4%	51	76.1%
Enrofloxacin(ENR5)			0	0.0%	2	3.0%	65	97.0%
Florfenicol(FFC25)			13	19.4%	9	13.4%	45	67.2%
Ceftiofur sodium(C2.5)			6	9.0%	11	16.4%	50	74.6%
Gentamicin(CN10)			43	64.2%	18	26.9%	6	9.0%
Linsmycin(LS109)			5	7.5%	30	44.8%	32	47.8%
Neomycin(N30)			42	62.7%	21	31.3%	4	6.0%
Penicillin G(P10)			11	16.4%	0	0.0%	56	83.6%
Tiamulin H.Fumarate(Ti25)			46	68.7%	17	25.4%	4	6.0%
Streptomycin(S10)			55	82.1%	12	17.9%	0	0.0%
Tetracycline(T30)			26	38.8%	28	41.8%	13	19.4%
Trimethoprim/ Sulfamethoxazole(STX25)			24	35.8%	13	19.4%	30	44.8%
Tylosin tartrate(Ty25)			62	92.5%	3	4.5%	2	3.0%





Pasteurella multocida

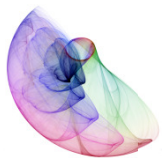




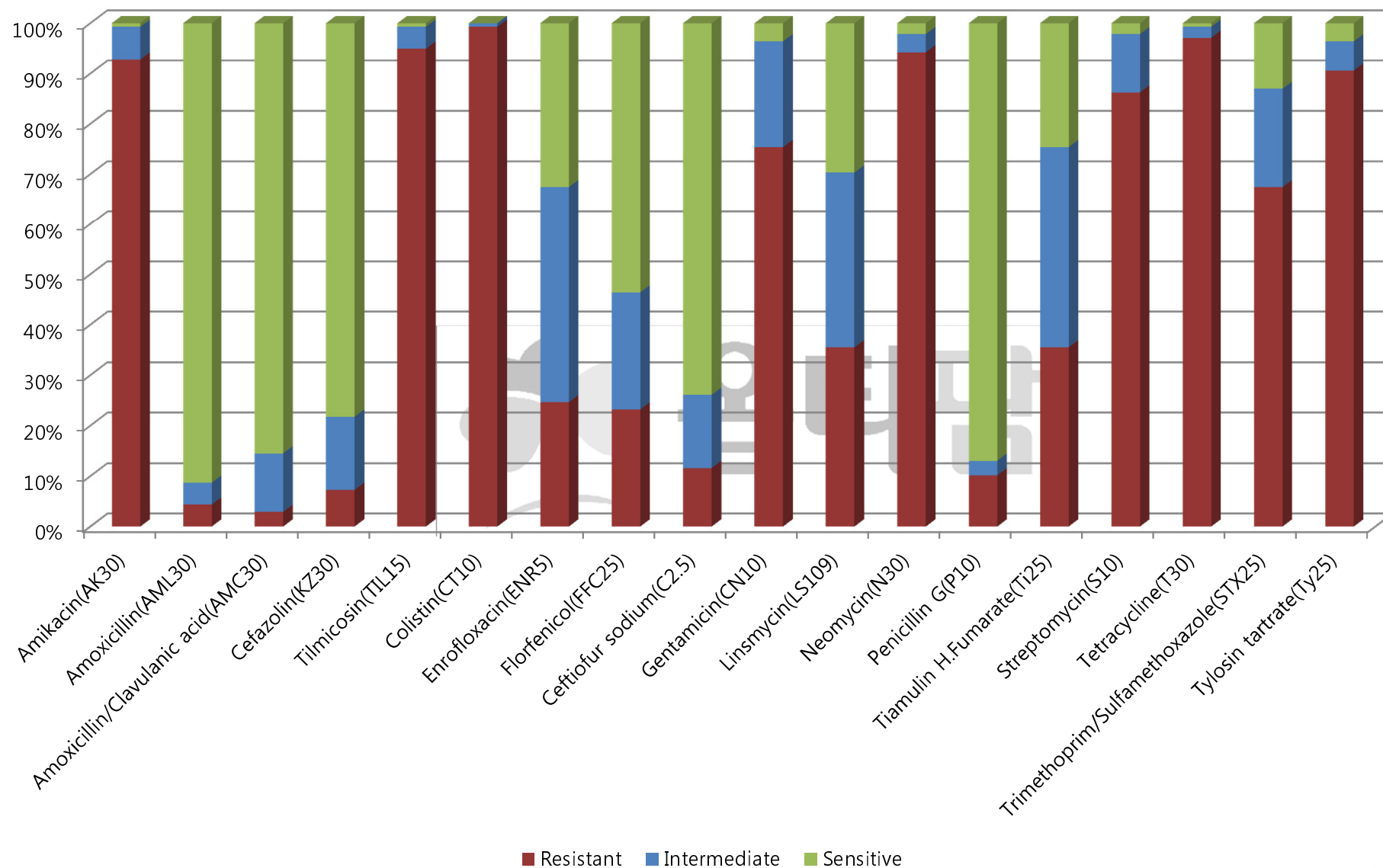
Streptococcus suis

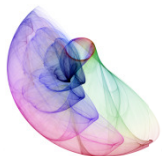
약 제 명	농장수	Test	항생제 내성 검사 결과					
			Resistant		Intermediate		Sensitive	
			Test	%	Test	%	Test	%
Amikacin(AK30)	96	138	128	92.8%	9	6.5%	1	0.7%
Amoxicillin(AML30)			6	4.3%	6	4.3%	126	91.3%
Amoxicillin/ Clavulanic acid(AMC30)			4	2.9%	16	11.6%	118	85.5%
Cefazolin(KZ30)			10	7.2%	20	14.5%	108	78.3%
Tilmicosin(TIL15)			131	94.9%	6	4.3%	1	0.7%
Colistin(CT10)			137	99.3%	1	0.7%	0	0.0%
Enrofloxacin(ENR5)			34	24.6%	59	42.8%	45	32.6%
Florfenicol(FFC25)			32	23.2%	32	23.2%	74	53.6%
Ceftiofur sodium(C2.5)			16	11.6%	20	14.5%	102	73.9%
Gentamicin(CN10)			104	75.4%	29	21.0%	5	3.6%
Linsmycin(LS109)			49	35.5%	48	34.8%	41	29.7%
Neomycin(N30)			130	94.2%	5	3.6%	3	2.2%
Penicillin G(P10)			14	10.1%	4	2.9%	120	87.0%
Tiamulin H.Fumarate(Ti25)			49	35.5%	55	39.9%	34	24.6%
Streptomycin(S10)			119	86.2%	16	11.6%	3	2.2%
Tetracycline(T30)			134	97.1%	3	2.2%	1	0.7%
Trimethoprim/ Sulfamethoxazole(STX25)			93	67.4%	27	19.6%	18	13.0%
Tylosin tartrate(Ty25)			125	90.6%	8	5.8%	5	3.6%





Streptococcus suis

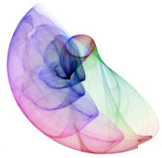




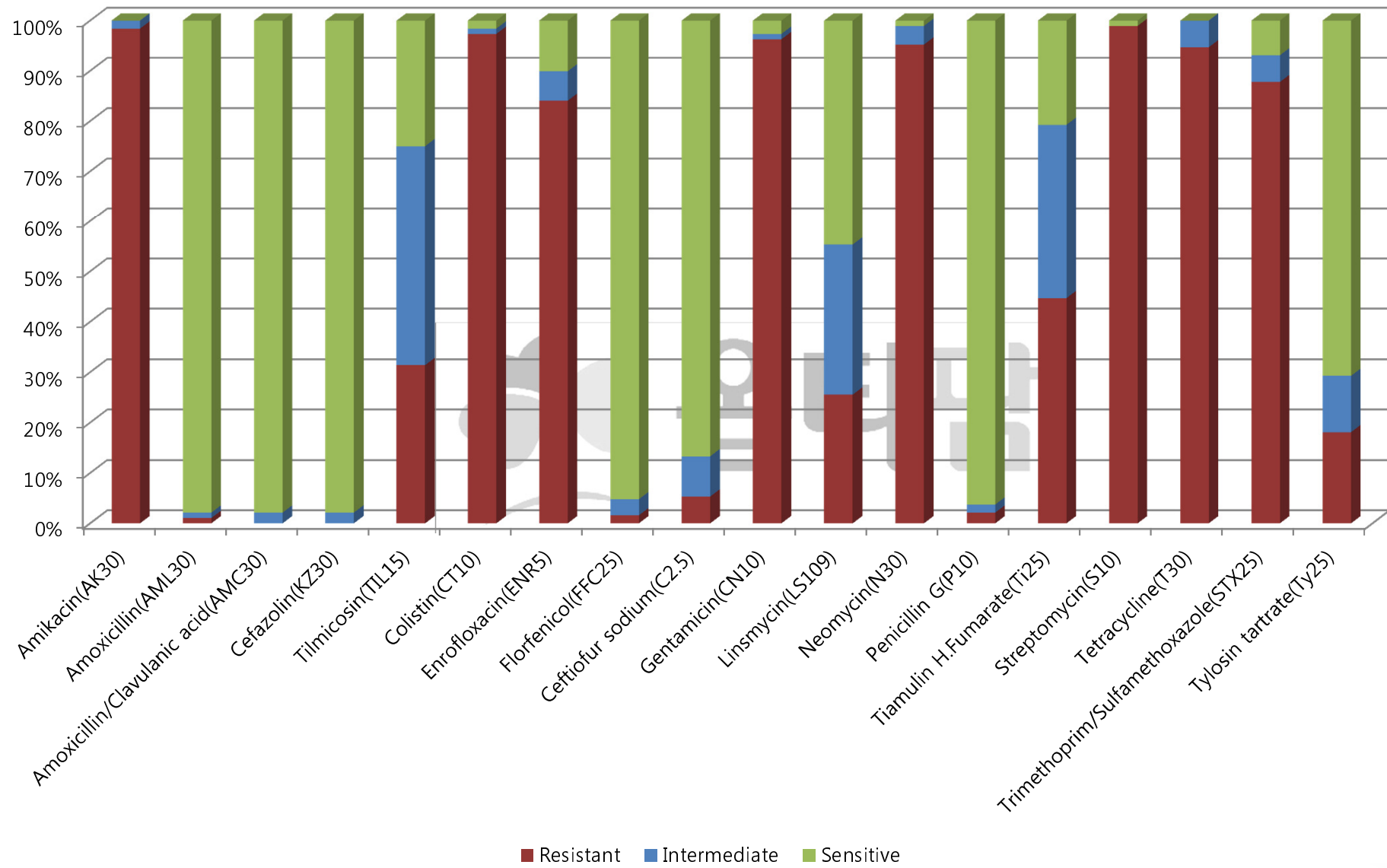
Clostridium perfringens

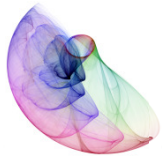
약 제 명	농장수	Test	항생제 내성 검사 결과					
			Resistant		Intermediate		Sensitive	
			Test	%	Test	%	Test	%
Amikacin(AK30)	83	188	185	98.4%	3	1.6%	0	0.0%
Amoxicillin(AML30)			2	1.1%	2	1.1%	184	97.9%
Amoxicillin/ Clavulanic acid(AMC30)			0	0.0%	4	2.1%	184	97.9%
Cefazolin(KZ30)			0	0.0%	4	2.1%	184	97.9%
Tilmicosin(TIL15)			59	31.4%	82	43.6%	47	25.0%
Colistin(CT10)			183	97.3%	2	1.1%	3	1.6%
Enrofloxacin(ENR5)			158	84.0%	11	5.9%	19	10.1%
Florfenicol(FFC25)			3	1.6%	6	3.2%	179	95.2%
Ceftiofur sodium(C2.5)			10	5.3%	15	8.0%	163	86.7%
Gentamicin(CN10)			181	96.3%	2	1.1%	5	2.7%
Linsmycin(LS109)			48	25.5%	56	29.8%	84	44.7%
Neomycin(N30)			179	95.2%	7	3.7%	2	1.1%
Penicillin G(P10)			4	2.1%	3	1.6%	181	96.3%
Tiamulin H.Fumarate(Ti25)			84	44.7%	65	34.6%	39	20.7%
Streptomycin(S10)			186	98.9%	0	0.0%	2	1.1%
Tetracycline(T30)			178	94.7%	10	5.3%	0	0.0%
Trimethoprim/ Sulfamethoxazole(STX25)			165	87.8%	10	5.3%	13	6.9%
Tylosin tartrate(Ty25)			34	18.1%	21	11.2%	133	70.7%





Clostridium perfringens

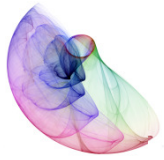




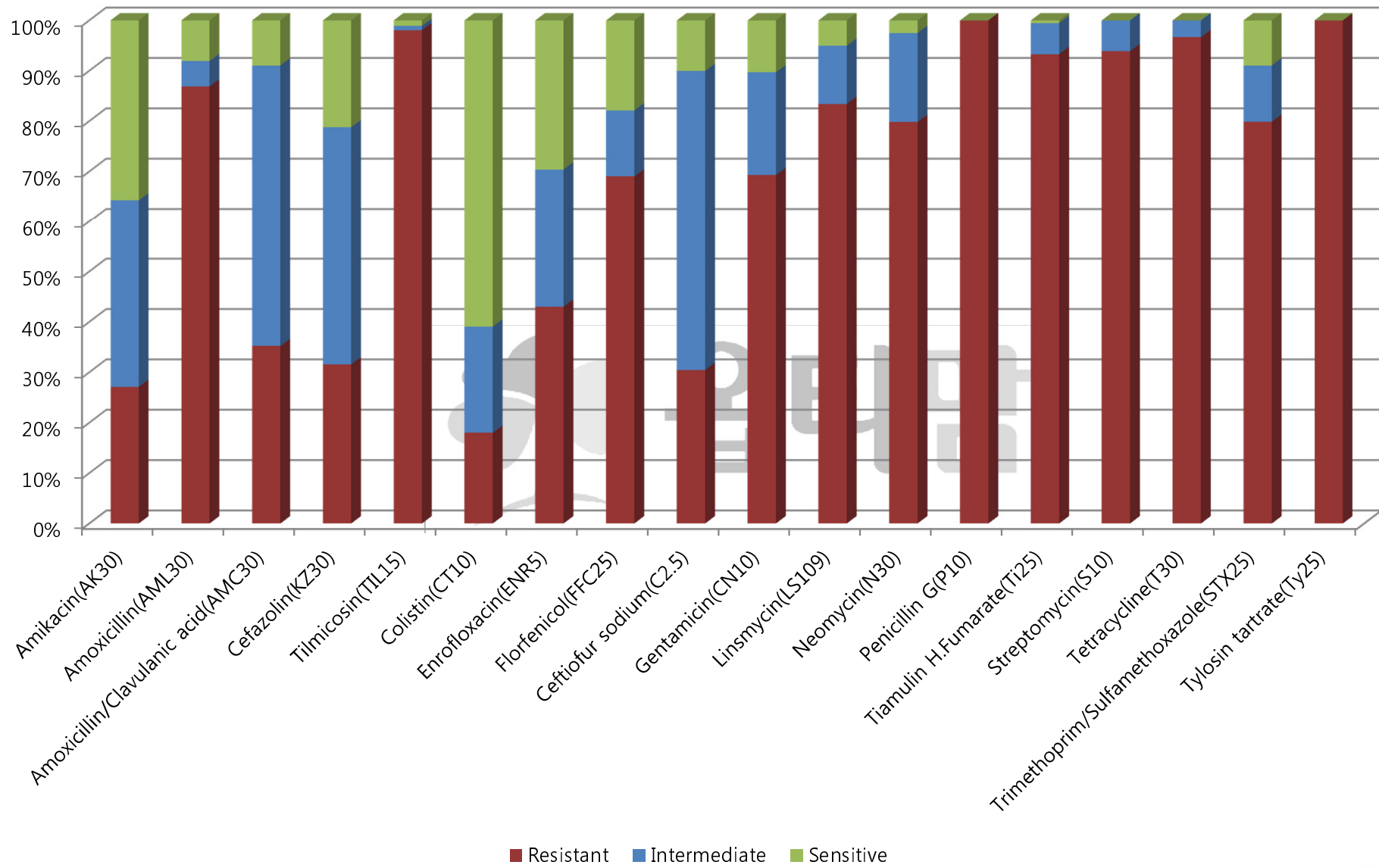
Escherichia coli

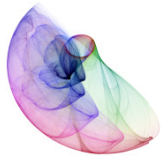
약 제 명	농장수	Test	항생제 내성 검사 결과					
			Resistant		Intermediate		Sensitive	
			Test	%	Test	%	Test	%
Amikacin(AK30)	194	358	97	27.1%	133	37.2%	128	35.8%
Amoxicillin(AML30)			311	86.9%	18	5.0%	29	8.1%
Amoxicillin/ Clavulanic acid(AMC30)			126	35.2%	200	55.9%	32	8.9%
Cefazolin(KZ30)			113	31.6%	169	47.2%	76	21.2%
Tilmicosin(TIL15)			351	98.0%	3	0.8%	4	1.1%
Colistin(CT10)			64	17.9%	75	20.9%	217	60.6%
Enrofloxacin(ENR5)			154	43.0%	98	27.4%	106	29.6%
Florfenicol(FFC25)			247	69.0%	47	13.1%	64	17.9%
Ceftiofur sodium(C2.5)			109	30.4%	213	59.5%	36	10.1%
Gentamicin(CN10)			248	69.3%	73	20.4%	37	10.3%
Linsmycin(LS109)			297	83.0%	41	11.5%	18	5.0%
Neomycin(N30)			285	79.6%	63	17.6%	9	2.5%
Penicillin G(P10)			358	100.0%	0	0.0%	0	0.0%
Tiamulin H.Fumarate(Ti25)			334	93.3%	22	6.1%	2	0.6%
Streptomycin(S10)			336	93.9%	22	6.1%	0	0.0%
Tetracycline(T30)			346	96.6%	12	3.4%	0	0.0%
Trimethoprim/ Sulfamethoxazole(STX25)			286	79.9%	40	11.2%	32	8.9%
Tylosin tartrate(Ty25)			358	100.0%	0	0.0%	0	0.0%





Escherichia coli

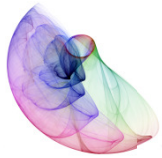




Salmonella spp.(serogroup B)

약 제 명	농장수	Test	항생제 내성 검사 결과					
			Resistant		Intermediate		Sensitive	
			Test	%	Test	%	Test	%
Amikacin(AK30)	15	25	0	0.0%	12	48.0%	13	52.0%
Amoxicillin(AML30)			18	72.0%	0	0.0%	7	28.0%
Amoxicillin/ Clavulanic acid(AMC30)			6	24.0%	9	36.0%	10	40.0%
Cefazolin(KZ30)			2	8.0%	11	44.0%	12	48.0%
Tilmicosin(TIL15)			25	100.0%	0	0.0%	0	0.0%
Colistin(CT10)			1	4.0%	6	24.0%	18	72.0%
Enrofloxacin(ENR5)			4	16.0%	17	68.0%	4	16.0%
Florfenicol(FFC25)			17	68.0%	5	20.0%	3	12.0%
Ceftiofur sodium(C2.5)			20	80.0%	5	20.0%	0	0.0%
Gentamicin(CN10)			21	84.0%	2	8.0%	2	8.0%
Linsmycin(LS109)			19	76.0%	3	12.0%	3	12.0%
Neomycin(N30)			15	60.0%	6	24.0%	4	16.0%
Penicillin G(P10)			25	100.0%	0	0.0%	0	0.0%
Tiamulin H.Fumarate(Ti25)			25	100.0%	0	0.0%	0	0.0%
Streptomycin(S10)			21	84.0%	4	16.0%	0	0.0%
Tetracycline(T30)			23	92.0%	2	8.0%	0	0.0%
Trimethoprim/ Sulfamethoxazole(STX25)			20	80.0%	3	12.0%	2	8.0%
Tylosin tartrate(Ty25)			25	100.0%	0	0.0%	0	0.0%





Salmonella spp.(serogroup B)

