

7 ANNEXES

7.1 Annex 1. Map of Denmark



7.2 Annex 2.

Details of COP crops 1990-1999: area in ha

Crop/year	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Wheat	532,949	518,715	582,504	619,360	572,359	606,666	674,207	684,835	673,209	619,381
Rye	108,545	79,622	88,178	78,273	87,937	95,720	75,495	88,320	103,171	49,180
Winter barley	139,469	140,195	151,328	174,568	182,087	185,419	197,545	176,416	162,040	150,508
Spring barley	761,646	795,382	759,064	534,883	517,670	528,873	565,693	562,578	497,796	550,680
Other cereals	23,953	24,638	30,853	30,824	43,321	30,816	32,235	43,117	57,768	78,000
Cereals, total	1,566,562	1,558,552	1,611,928	1,437,908	1,403,374	1,447,494	1,545,175	1,555,266	1,493,984	1,447,749
Field peas	112,481	97,636	117,329	119,504	100,392	73,705	68,594	94,686	105,553	65,377
Other pulses	1,873	1,240	795	791	491	473	564	570	498	385
Pulses, total	114,354	98,876	118,123	120,295	100,883	74,178	69,158	95,256	106,051	65,762
Spring rape	110,230	76,186	62,659	27,003	73,628	44,001	37,124	30,298	21,607	35,035
Winter rape	159,869	202,973	117,786	136,832	95,711	192,917	122,468	140,706	174,137	104,775
Mustard, flax etc.	2,186	1,161	920	716	1,572	2,126	3,538	3,513	3,872	10,705
Lucerne	8,494	10,810	10,838	11,650	10,629	10,099	11,145	7,342	6,850	5,514
Peas for canning	8,791	8,716	8,723	8,977	6,103	5,529	3,758	3,124	3,962	4,172
Total agricultural area	2,788,276	2,769,657	2,756,327	2,738,559	2,691,174	2,726,048	2,716,034	2,688,014	2,671,850	2,644,048

Source: Statistics Denmark

Yield in ton	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Cereals, total	9,606,978	9,231,244	6,954,231	8,197,942	7,800,032	9,150,009	9,218,303	9,529,132	9,334,137	8,774,274
Winter wheat	3,895,111	3,610,952	3,526,274	4,280,132	3,663,382	4,565,439	4,729,249	4,901,695	4,894,378	4,432,955
Spring wheat	58,301	58,899	56,737	54,228	61,812	33,067	28,493	63,008	33,997	37,790
Rye	545,019	394,634	308,333	355,652	423,066	494,641	342,897	452,519	537,657	247,782
Triticale	0	0	0	0	0	0	0	70,239	141,883	251,299
Winter barley	870,005	819,393	751,855	985,301	1,005,292	1,130,538	1,067,964	1,046,675	939,956	883,725
Spring barley	4,117,401	4,221,800	2,221,819	2,384,146	2,440,773	2,767,892	2,885,391	2,840,088	2,625,352	2,790,895
Oats	121,141	125,566	89,213	138,482	205,707	158,431	164,309	154,908	160,915	129,828
Rape, total	793,096	725,841	405,923	416,539	370,662	312,437	250,822	291,244	358,799	411,090
Winter rape	520,978	556,320	329,167	365,771	240,173	237,510	172,467	223,482	312,427	348,506
Spring rape	272,118	169,521	76,756	50,768	130,489	74,927	78,355	67,762	46,372	62,585
Pulses, total	550,546	417,517	302,741	453,761	376,650	282,242	256,779	384,274	385,757	192,508
Lucerne	423,014	501,952	434,366	544,657	460,455	481,190	439,897	460,976	462,113	360,229

Source: Statistics Denmark

7.3 Annex 3 List of persons interviewed

For all persons listed a full interview report (in Danish) is available. The institutions selected for interviews were selected from those listed in *Terms of reference* as relevant for regional interviews. Not all the suggested institutions were found to be relevant in the case of Denmark; only the most relevant institutions were selected.

With regards of the farmers representation the two most important and influential farmers organisations in Denmark were selected. The Chamber of agriculture were not selected, because on the topic of set aside it is the organisations who are responsible.

With regards of the administrative system, *The Directorate for Food, Fisheries and Agri Business* and *The Plant Directorate* were selected. The first Directorate is responsible for the administration of all EU support schemes, the second is responsible for the control of the support schemes. Since there are much autonomy granted the *The Directorate for Food, Fisheries and Agri Business* with regards of formulating and implementation of the set aside rules and that the head of division, which were interviewed just came from the ministry where he had been responsible for set aside policy, it was decided that there were no need for a interview with representatives for the agricultural ministry.

For persons marked (*) a full interview rapport in Danish is available

Danish Family Farmers' Association

Mr. Flemming Lebert Sørensen, head of department. (*)

The Plant Directorate

Mr. Aksel Nielsen, head of department and Mr. Stefan Tausen, head of section, *Department of EU control*.(*)

The Directorate for Food, Fisheries and Agri Business

Mr. Niels Sønderby, head of division and Mr. Claus Schøsler, head of section, *Division for Crops Compensation – Set aside etc..* (*)

Mr. Steen Bonde, head of division and Ms. Signe Bastiansen, head of section, *Division for support of agri-environment and organic production*.

The Danish Society for the Conservation of Nature

Ms. Rikke Lundsgaard (*)

Danish Forest and Nature Agency

Ms. Lene Holm, head of section, *Division of Agriculture and Biotechnology*.

Danish Farmers' Union

Mr. Kjeld Bukh Hansen og Ms. Lidde Bagge Jensen (*)

The National Environmental Research Institut.

Mr. Jesper Sølvér Schou, Phd, senior researcher, *Department for Policy Analysis*.

The Danish Institute of Agricultural and Fisheries Economics

Mr. Søren Marcus Pedersen, researcher, Mr. Jens Abildtrup, Phd., researcher, *Farm Management and Production Systems Division*.

Ms. Inger Larsen, researcher, *Statistics Division*.

The Danish Agricultural Advisory Centre.

Ms. Irene Wiborg, consultant.

7.4 Annex 4 Detail des enquetes auprès des exploitants

In the following the summarised results of the Danish case study of 30 farmers are described. There are used French terminologies supplemented with English in all questions to make it easier for the reader to compare results from different countries.

Denmark -TOTAL

10% des agriculteurs ont des terres dans un autre département

MOYENNES SUR 30 AGRICULTEURS INTERROGES:

SAU (ha)	SCOP (ha)	SCOP irrigable (ha)	SCOP irriguée (ha)	Taux de gel dans la déclaration PAC (%)	Gel (ha)
210,22	138,40	10,669	22,93	11,04	17,46

Céréales (sauf maïs)	Maïs grain	Maïs ensilage	Oléagineux	Protéagineux	Other*	Dont gel industriel	Autres surfaces agricoles	Dont jachère agronomique
130,32	0	1,24	4,86	1,89	51,82	1,78	1,53	7,43

*Potatoes, grass for fodder, grass for seed production, sugar beets, and chives.

1-Adaptation au gel

1/1-Avant le gel, surface en gel ou en friche	Somme
Oui	6,67%
Non	90,00%
Pas de réponse	3,33%

1/2-Si oui pourquoi ? (Pour les agriculteurs ayant répondu "Oui" à la question 1/1)
Advised by the organisation, Economic reasons

1/3-Quelle surface ? (Pour les agriculteurs ayant répondu "Oui" à la question 1/1)	10
2 farmers	

1/4-Sur quel type de terrain ? (Pour les agriculteurs ayant répondu "Oui" à la question 1/1)
marginal wet land,

MODE D'ADAPTATION

1/5-1-Achat de terres arables pour retrouver surface initiale	16,67%
1/5-2-Augmentation des rendements sur le reste de l'exploitation	3,33%
1/5-3-Diminution des intrants et/ou des façons culturales	6,67%
1/5-4-Rééquilibrage/changement au profit des cultures plus rentables	6,67%
1/5-5-Si oui (pour les exploitants qui ont répondu "Vrai" à la question 1/5-4), vers quelle culture ?	
From grass to reform crops -	
cheaper way of producing fodder for animal husbandry	
From reform cereals to grass	
1/5-6-Autres	6,67%
Leased 20 ha in order to set it aside	
Employed a more administrative skilled manager than before	

PROBLEMES ADMINISTRATIFS

1/6-1-Erreur de la surface dans la déclaration	23,33%
1/6-2-Taille minimale des parcelles non respectée	0,00%
1/6-3-Rendement minimal du gel industriel non respecté	6,67%
1/6-4-Date de début et de fin de gel problématique	3,33%
1/6-5-Information tardive sur le taux de gel	16,67%
1/6-6-Lourdeur des procédures administratives	60,00%
1/6-7-Manque d'intégration des différentes aides	3,33%
1/6-8-Versement des aides trop tardif	26,67%
1/6-9-Autres	13,33%
Inconvenient and expensive to measure areas	

1/7-Quelles améliorations vous paraissent possibles
Free market; Withdraw right to transfer set-aside with no distance limit because it increases the price of land to an artificial high level
Only voluntary set-aside, remove max % limit of set-aside; Raise subsidy for set-aside areas; More flexibility, give opportunities to be granted
an exemption; pig farms should be exempted from set-aside since they do not contribute to the over production of reform crops
Farm whole UAA less intensive, instead of some areas farmed very intensive and others set-aside

2- Gel Volontaire

MOTIVATION POUR FAIRE DU GEL VOLONTAIRE	
% d'agriculteurs pratiquant actuellement le gel volontaire	
Oui	20,00%
Non	80,00%
2/1-1-Précaution pour ne pas se voir infliger de pénalité	
	33,33%
2/1-2-Raisons économiques	
	33,33%
2/1-3-Réduction d'activité déjà en cours	
	33,33%
2/1-4-Opportunité pour ne pas renouveler du matériel	
	0,00%
2/1-5-Autres	
	16,67%
wet marginal land; most practical; to avoid splitting up two fields	
% d'agriculteurs pratiquant actuellement le gel volontaire	
2/2-Toujours fait du gel volontaire	Somme
Oui	50,00%
Non	50,00%
% d'agriculteurs ayant répondu "non" à la question 2/2	
2/3-Si non pourquoi ?	
% d'agriculteurs pratiquant actuellement le gel volontaire	
2/4-Taux maxi de gel autorisé empêche de geler plus	Somme
Oui	16,67%
Non	83,33%

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3- Gel Non Alimentaire

33,33% des exploitants enquêtés pratiquent le gel industriel	10
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3/1 - Si vous utilisez vos terres gelées pour des productions non alimentaires, quelles sont les espèces cultivées ?		
3/1-1-Oléagineux	3/1-2-Céréales	
100% rape		
5,2		0
3/1-3-Protéagineux	3/1-4-Pommes de terres et Betterave	
0		0
3/1-5-Biomasse forestière	3/1-6-Autres cultures industrielles	
0	0	

3/2 - Quelle proportion de vos terres gelées est cultivée en non alimentaire ?		
3/2-Proportion moyenne de terres gelées cultivées (par les 30% d'exploitants qui pratique le gel industriel):		87,2%

3/3- Pour quelles raisons avez-vous choisi de faire ou de ne pas faire des cultures non alimentaires ?	
(% des agriculteurs qui font du gel industriel)	
3/3-1-Faire/Rentable	0%
3/3-2-Faire/Entretien des parcelles à moindre coût	100%
Avoid weeds, spread af manure	
3/3-3-Faire/Obligation relative à un contrat	0%
3/3-4-Faire/intérêt agronomique dans la rotation	30%

3/3- Pour quelles raisons avez-vous choisi de faire ou de ne pas faire des cultures non alimentaires ?
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(% des agriculteurs qui ne font pas de gel industriel)	
3/3-5-Ne pas faire/Pas rentable	80,00%
3/3-6-Ne pas faire/trop de contraintes	15,00%
3/3-7-Autres (Sur la totalité des agriculteurs interrogés)	45,00%
Too much paper work; fits badly in rotation; soil not suitable for non-food; no need for spreading manure	

3/4 - Cela a-t-il évolué dans le temps et comment ?	
3/4-1-Evolution dans le temps	Somme
Oui	13%
Non	87%
Pas de réponse	0%

23,81% des exploitants ne pratiquant pas actuellement de cultures non alimentaires ont essayé au moins un an.

4-Structures

4/1-Agrandissement 1987-1992	Somme	
Oui	33,33%	Not farmer before 92
Non	63,33%	3,33%

4/3-1-Agrandissement moyen des exploitations qui se sont effectivement agrandies entre 1987 et 1992:	30,86	10 farmers
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4/2-Agrandissement 1992-1999	Somme	
Oui	66,67%	
Non	33,33%	

4/3-2-Agrandissement moyen des exploitations qui se sont effectivement agrandies entre 1992 et 1999:	49,98	20 farmers
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4/4 –Difficultés, pour ce qui se sont agrandis (ou qui ont essayé), à trouver des terres arables à acheter ou louer depuis 1992 ?	Somme	
Oui	60,00%	
Non		30,00 %
Pas de réponse (if no in 4/3-2)	10,00%	

4/5-Si oui, le gel est une cause de difficultés (Pour ceux qui ont répondu "Oui" à la question 4/4)?	Somme	
Oui	66,67%	
Non	33,33%	
Pas de réponse	0,00%	

out of 30 farmers

4/6-Création d'un marché de terres arables éligibles	Somme	
Oui	76,67%	
Non	20%	
Pas de réponse	3,33%	

5-Rotations

5.1. Rotation before 1992:

5/2-Changement de la rotation des cultures	Somme	
Oui	50,00%	
Non	50,00%	

5/3. If YES in 5/2 - rotation today:

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Taux moyen de gel pondéré par la surface = (surface totale en gel rotationnel <u>ou</u> fixe de l'échantillon * 100) / surface totale en gel de l'échantillon		
gel rotationnel	gel fixe	Rotational but at the same area
39,95	27,07	32,98

% d'agriculteurs interrogés pratiquant le gel fixe, rotationnel ou mixte			
100% rotationnel	100% fixe	Mixte	100% rotational but at the same area
26,67%	20,00%	26,67%	26,67%

5/5-Si vous faites du gel rotationnel pourquoi ?
Avoid weeds; non-food= use it for manure; keep options for adjustment;
economy in permanent set-aside not attractive;
Fears further environmental restrictions if the areas turns more into nature as is the
case when permanently set-aside; no marginal land suitable for permanent set-aside
Fits well in rotation;

6-Localisation du Gel

Localisation du gel pour les 30 agriculteurs enquêtés	
6/1-1-Gel rotationnel	56,67%
6/1-2-Gel fixe/cours d'eau	20,00%
6/1-3-Gel fixe/parcelles trop petites	46,67%
6/1-4-Gel fixe/éloignement exploitation	36,67%
6/1-5-Gel fixe/fertilité ou irrigation	43,33%
6/1-6-Gel fixe/parcelle pentue	3,33%
6/1-7-Gel fixe/parcelles peu cultivées	0,00%
Au moins une des 5 réponses (petites, éloignée, peu fertile, pentue, peu cultivée)	80,00%
6/1-8-Gel fixe/parcelle acquise pour gel	13,33%
6/1-9-Transfert de gel	6,67%
6/1-10-Autres	10,00%

7-Entretien – Environnement

7/1-Difficultés à gérer les jachères au début	Somme
Oui	46,67%
Non	53,33%

Difficultés rencontrées (% de ce qui ont répondu "Oui" à la question 7/1.)	
7/2-1-Mauvaise maîtrise de l'enherbement	92,86%
7/2-2-Problèmes d'érosion	0,00%
7/2-3-Développement de maladies	0,00%
7/2-4-Développement des ravageurs	0,00%
7/2-5-Aspect abandonné	14,29%
7/2-6-Période réglementaire de gel problématique	0,00%
7/2-7-Autres	0,00%

7/3-Difficultés à gérer les jachères aujourd'hui	Somme
Oui only 10 farmers	33,33%
Non	66,67%

Difficultés rencontrées (% de ce qui ont répondu "Oui" à la question 7/3.)	
7/4-1-Mauvaise maîtrise de l'enherbement	80,00%
7/4-2-Problèmes d'érosion	0,00%
7/4-3-Développement de maladies	0,00%
7/4-4-Développement des ravageurs	0,00%

7/4-5-Aspect abandonné	50,00%
7/4-6-Période réglementaire de gel problématique	0,00%
7/4-7-Autres	0,00%

Difficultés à gérer les jachères	
Au début	Aujourd'hui
50,00%	36,67%

7.5 - Sur les terres gelées non cultivées en cultures non alimentaires quel type de couvert pratiquez-vous ? (Plusieurs réponses étant possibles, la somme des "VRAI" peut dépasser 100%)	
7/5-1-Vous n'avez-pas de terre gelée non cultivée	23,33%
7/5-2-Gel nu	0,00%
7/5-3-Enherbement spontané	23,33%
7/5-4-Semis de plantes à but agronomique	56,67%
7/5-5-Semis de plantes pour d'autres buts	0,00%
7/5-6-Autres	3,33%
70% sown grass & 30% natural regeneration	

7.6 - Sur les terres gelées non cultivées en cultures non alimentaires quel type d'entretien pratiquez vous ?	
7/6-1-Enlèvement de la végétation (Gel nu)	0,00%

7/6-2-Fauche ou gyrobroyage de la végétation	86,96%
7/6-3-Passage d'un cover crop ou d'un outil similaire	4,35%
7/6-4-Désherbage chimique	0,00%
7/6-5- Autres	0,00%

7/7-Quand réalisez-vous cet entretien ?		
July, August		
7/8-1-Avez-vous une idée du coût d'entretien/ha des parcelles gelées ?		
Oui	50,00%	pas de réponse
Non	46,67%	3,33%
7/8-2-Si oui, quel est le coût moyen de l'entretien/ha en Euro ?		
(Moyenne des agriculteurs ayant répondu "oui" à la question 7/8-1)	Dkk	Euro (7,45 Dkk/Euro)
Ecart type :	397	53,4333

7/9-1-Irrigation de terres gelées	Somme
Oui	0,00%
Non	100,00%
% d'agriculteurs ayant répondu "oui" à la question 7/9-1 (Hvis ja ovenfor)	
7/9-2-1-Cultures non alimentaires	0,00%
7/9-2-2-Aide à végétation sans production	0,00%
7/9-2-3-Autres	0,00%

7/10-Remarques sur l'état d'abandon des parcelles gelées	Somme
Oui	40,00%
Non	53,33%
Pas de réponse	6,67%

7/11-Les terres gelées se remarquent dans le paysage	Somme
Oui	33,33%
Non	66,67%

7/12-Concentration de parcelles gelées sur une zone de l'exploitation	Somme
Oui	33,33%

Non	66,67%	
7/13-Si oui, autres parcelles gelées sur même secteur (% d'agriculteurs ayant répondu "Oui" à la question 7.12) (HVIS JA er der andre landmænd som har brak i samme område)		
	Somme	
Oui	30,00%	out of 10 farmers
Non	70,00%	out of 10 farmers
Pas de response (if 'no' in 7.12)	100%	out of 20 farmers
7/14-Existence de secteur ayant un aspect abandonné		
	Somme	
Oui	6,67%	
Non	13,33%	
Pas de response (if 'no' in 7.13)	80,00%	
7/15-Participation à des programmes agri-environnementaux		
	Somme	
Oui	23,33%	
Non	76,67%	
Pas de réponse	0,00%	
7.16 - Si oui dans quel domaine ? (% d'agriculteurs ayant répondu "Oui" à la question 7.15)		
7/16-1-Protection des sols	0,00%	
7/16-2-Protection de l'eau	85,71%	
7/16-3-Protection des paysages	0,00%	
7/16-4-Protection de la biodiversité	0,00%	
7/16-5-Autres	0,00%	
7/17-Connaissance de la réglementation sur l'entretien		
	Somme	
Oui bien	43,33%	
Oui un peu	56,67%	
Non	0,00%	
7/18-Si oui, l'appliquez-vous ? (% d'agriculteurs ayant répondu "Oui bien" ou "Oui un peu" à la question 7/17)		
	Somme	
Oui	100,00%	
Non	0,00%	
7/19-Comment en avez-vous eu connaissance ?		

<i>(% d'agriculteurs ayant répondu "Oui bien" ou "Oui un peu" à la question 7.17)</i>	
7/19-1-Joint au dossier de demande PAC	86,67%
7/19-2-Envoi par un organisme professionnel auquel j'adhère	90,00%
7/19-3-Lu dans la presse	26,67%
7/19-4-Affichage public en mairie	10,00%
7/19-5-Autres	3,33%

8-9-10-Rémunération, Effet du Gel

8/1-Le gel est-il actuellement incontournable?	Somme	
Oui	43,33%	pas de reponse
Non	50%	6,67%

8/2-Si non, pourquoi ? (% des agriculteurs ayant répondu "non à la question 8/1) More profitable to cultivate the areas; the subsidy account for only a little share of total income;

8/3-Le système PAC actuel vous convient-il?	Somme	
Oui	37%	pas de reponse
Non	53%	10%

Réponse à la question 8/3-"Le système PAC vous convient-il ?" en fonction de la surface COP des agriculteurs interrogés

Pour les grands producteurs (classes d'exploitations représentant de 50 à 70% de la SCOP totale de la région : à calculer pour chaque région)

8/3-Le système PAC actuel vous convient-il? X > 50 ha	Somme	
Oui	39,13%	pas de reponse
Non	56,52%	4,35%

Pour les petits producteurs (autres exploitations)		
8/3-Le système PAC actuel vous convient-il? X < 50 ha	Somme	farmers
Oui	28,57%	pas de reponse
Non	42,86%	28,57%

8/4- Pourquoi ? Too much paper work, bureaucracy, control; subsidy per ha is too visible; removes incentive of farming , Unfair that subsidy is equal for good and bad soil; good security for farmers; Good economy; not fair to postpone whole subsidy one month because of non-food

8/5- Quel système souhaiteriez-vous ? Free market; subsidy conditioned by production rather than ha; reduce with certain share of production unity instead of certain share of ha.; same subsidy level for all crops

9/1-Maintien du revenu	Somme
Oui	30%
	53%
Pas de réponse	20%

9/2-Selon vous pourquoi le gel est-il rémunéré ?	
9/2-1-Aide au maintien du revenu des producteurs	10%
9/2-2-Participation aux frais d'entretien des parcelles gelées	97%
9/2-3-Autres	10%
Environment; secure cheap food for consumers;	

9/3-Changesments dans le choix des cultures ou activités	Somme	
Oui	23%	pas de reponse
Non	67%	10%

% des exploitants ayant répondu "Oui" à la question 9/3.					7 farmers
9/4-1-1- Dévt /Oléagineux	42,86%				
rape					
9/4-1-2- Dévt /Céréales	14,29%				
wheat, barley, rye					
9/4-1-3-Dévt./Protéagineux	42,86%				
pulses					
9/4-1-4- Dévt/Diversification en dehors des COP	0,00%				
9/4-1-5-Dévt/Diversification en dehors de l'agriculture	14,29%				
Country fair in 1994 & 1996					
9/4-1-6-Dévt/Autres	0,00%				

9/4-2-1-Réduc/Oléagineux	28,57%		
rape			

	42,86%			
9/4-2-2-Réduc/Céréales				
wheat, barley, rye				
9/4-2-3-Réduc/Protéagineux	42,86%			
pulses				
9/4-2-4-Réduc/Diversification en dehors des COP	0,00%			
9/4-2-5-Réduc/Diversification en dehors de l'agriculture	0,00%			
9/4-2-6-Réduction/Autres	0,00%			

9/5 Sur quels critères prioritaires choisissez-vous vos cultures?

	1	2	3	4	5
Agronomie (agronomiske)	70,00%	0,00%	3,33%	3,33%	0%
Rentabilité	70,00%	13,33%	3,33%	0%	0%
Facilité	23%	23,00%	0%	3,33%	0%
Environnement	7%	6,67%	6,67%	0%	0%

9/5-1-Agronomie	Somme	9/5-2-Rentabilité	Somme
0	7	0	4
1	21	1	21
2	0	2	4
3	1	3	1
4	1	4	0
5	0	5	0
Total	30	Total	30

9/5-3-Facilité	Somme	9/5-4-Environnement	Somme
0	15	0	24
1	7	1	2
2	7	2	2
3	0	3	2
4	1	4	0
5	0	5	0
	30		30

9.6 – Si vous amélioré la qualité de vos produits, de quelle façon (plusieurs réponses possibles) ?	
9/6-1-Adhésion à une filière exigeant une qualité minimale	70,00%
mostly barley for malt or wheat for bread	
9/6-2-Adhésion à une filière assurant une traçabilité des produits	6,67%
9/6-3-Passage à l'agriculture raisonnée ou conversion à l'agriculture biologique	0,00%
9/6-4-Autres	6,67%
buy seed corn; ensure rotation; more ecological sound management	

10/1-1-Effets non attendus du gel	
Oui	20,00%
Non	80,00%

10/1-2-Si oui, lesquels?
Changed landscape
Higher prices on land
Subsidy per ha is more visible than subsidy per production unity
The public start to believe they have a right to land set-aside
Reduction in income

10/2-Commentaires
Unsatisfied with 'dirty' set-aside fields
Set-aside is against the mentality of farmers
Set-aside is good for game
Set-aside results in too much weed. It takes a lot of pesticides to bring the areas back into rotation
It should be possible to graze set-aside areas but still with no fertiliser

Classement des Exploitations

Effet du gel sur la rotation	Somme
Effet du gel défavorisant une bonne rotation	0,00%
Effet du gel favorisant une bonne rotation	80,00%
Effet du gel neutre sur la rotation	

Analyse des gains et des pertes agronomiques et économiques de l'exploitation enquêtée	
G2/1-Classement de l'exploitation/bilan économique	Somme
Gain	33,33%
Neutre	66,67%
LOSS	0,00%
G2/2-Classement de l'exploitation/bilan agronomique	Somme
Gain	16,67%
Neutre	83,33%
LOSS	0,00%
Grille d'analyse de la relation entre les pratiques agricoles sur jachère et la gestion des sols	
G3-Classement/Pratiques agricoles sur jachère et gestion sols	Somme
Changement plutôt négatif	0,00%
Changement plutôt positif	23,33%
Pas de changement	76,67%

Grille d'analyse de la relation entre les pratiques agricoles sur jachère et la gestion de l'eau	
G4-Classement/Pratiques agricoles sur jachère et gestion eau	Somme
Changement plutôt négatif	0,00%
Changement plutôt positif	20,00%
Pas de changement	80,00%

Grille d'analyse de la relation entre les pratiques agricoles sur jachère et les effets sur le paysage	
G5-Classement/Pratiques agricoles sur jachère et paysage	Somme
Effet négatif sur le paysage	0,00%
Sans effet sur le paysage	100,00%

7.5 Annex 5. Other data

The table below shows the data, which the figure in the text related to the COP production, is based on.

Utilized agricultural area, 1985-2000

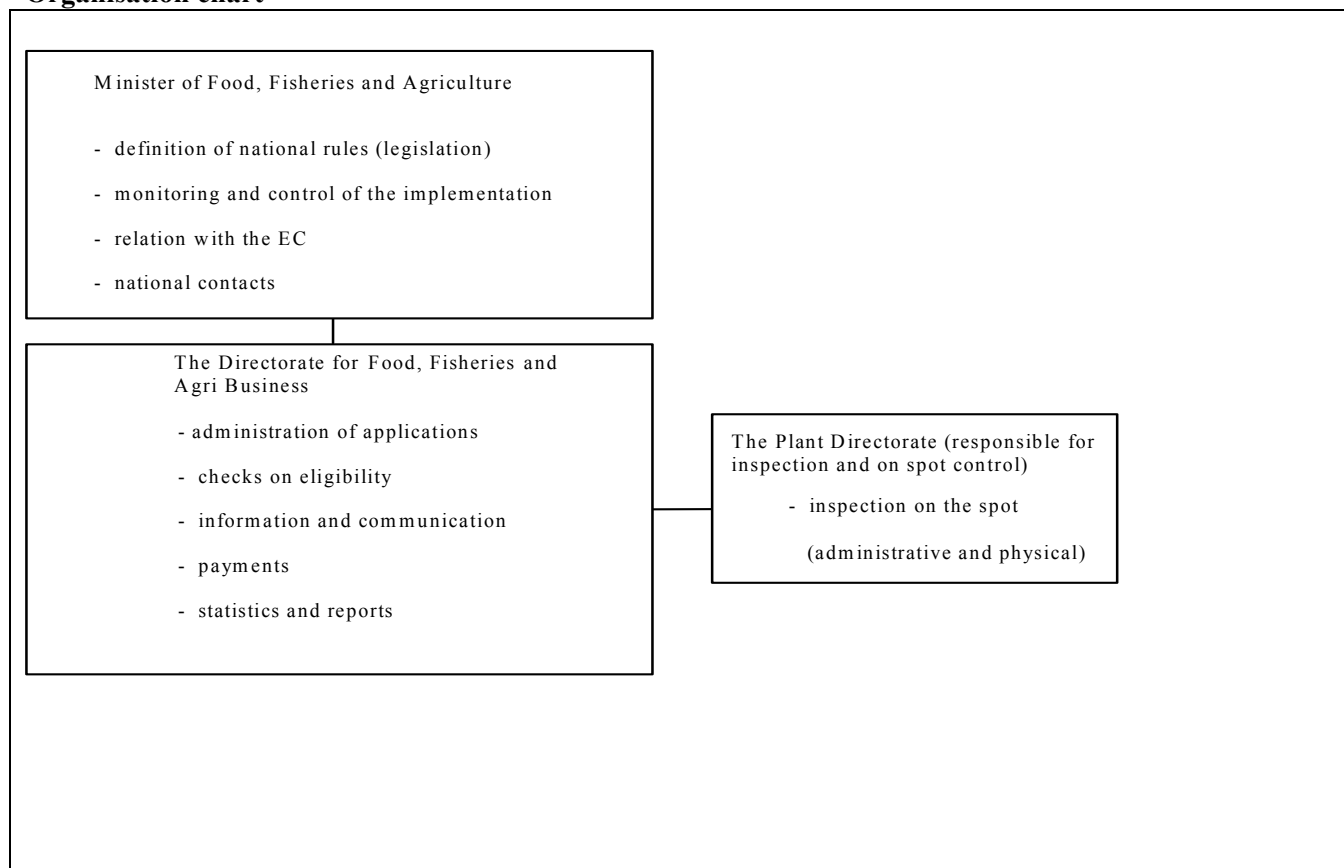
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Cereal, in 1000 t	7,956	7,968	7,184	8,068	8,795	9,607	9,231	6,954	8,198	7,881	9,150	9,218	9,529	9,334	8,774	9,431
Cereal tons per ha	4.97	5.05	4.79	5.08	5.63	6.13	5.88	4.37	5.86	5.53	6.29	6.05	6.21	6.1	5.86	6.16
Cereal, in 1000 ha	1.601	1.578	1.499	1.587	1.562	1.567	1.570	1.591	1.443	1.410	1.447	1.523	1.534	1.530	1.497	1.532
Pulses, in 1000 t	515	553	519	508	475	551	418	303	454	377	282	257	384	386	192	138
Pulses, tons per ha	4.06	3.81	2.54	3.46	3.86	4.83	4.21	2.58	3.76	3.73	3.74	3.71	4.02	3.63	2.92	3.73
Pulses, in 1000 ha	127	145	204	147	123	114	99	117	121	101	74	69	95	106	66	38
Oilseed, in 1000 t	544	618	556	504	655	793	726	406	417	371	324	251	291	359	411	294
Oilseed, tons per ha	2.47	2.68	2.14	2.48	2.81	2.92	2.59	2.38	2.54	2.19	2.08	2.38	2.81	3.06	2.7	2.9
Oilseed, in 1000 ha	220	231	260	203	233	272	280	170	164	170	152	106	104	117	152	101
Area in total, 1000 ha	2,834	2,819	2,800	2,787	2,774	2,778	2,770	2,756	2,739	2,691	2,726	2,716	2,688	2,672	2,644	
Total set aside, 1000 ha									215	205	256	221	160	151	210	214
Set aside rate									15	15/18	12/15	10	5	5	10	10
Non food, 1000 ha									17	46	40	25	11	9	27	24

Source: The Directorate for Food, Fisheries and Agri Business and Statistics Denmark (2000)

7.6 Annex 6. Set aside in Denmark

Organisation of the implementation, monitoring and control of the CAP and set aside area. The figure below shows the relation between the elements in the implication system.

Organisation chart



Administration

The figure above shows there are three institutions involved in the administration of the set aside in Denmark. First the Ministry of Food, Fisheries and Agriculture, who are overall responsible for the implementation of the set aside, measure in Denmark. The ministry lay down the political guidelines for the implementation, monitoring and control of set aside. Secondly the Directorate for Food, Fisheries and Agri business is responsible for the administration, information and payments in relation to set aside. The Directorate is also responsible for the detailed formulation and adaptation to the Danish situation in accordance with the guidelines given by the ministry; it is also responsible for the monitoring of the measure. Thirdly The Plant Directorate is responsible for the control both administratively and on the spot of the farmers.

Set aside regulation

Set aside is actually not compulsory for any farmer any were in the community. It is only compulsory if the farmers are claiming area payments. Then he must set aside a certain percentage of their land, and has complied

with the strict rules for managing the set-aside. The minimum rate of set-aside for 2001 is 10% of the total area claimed, the set aside rate is fixed every year by the EU.

The specific Danish rules concerning set aside have not changes significantly in the period 1992 to 2001, so the description will actually cover the whole period.

Basic area

It has been decided that Denmark is one region in respect of both the basic COP area and the basic yields. In accordance with the Commission regulation No. 2860/2000 the basic COP area is 2,018,537 hectares. It is calculated on basis of average area for each of the years 1989, 1990, 1991 with COP crops.

Cereal for harvest	1,573,659
Cereal and maize for silage	68,900
Sweet maize	205
Oil crops	260,790
Protein crops	111,270
Flax for oil or spinning	1,181
Set aside	1,532
Total	2,018,537 <i>hectares</i>

If the basic area is exceeded when all the applications are added up, all applications are reduced with the same percentage; in this way it is ensured that the payments does not exceed the ceiling.

Set aside rules

The minimum rate of set-aside for 2001 is 10% of the total area claimed. Small farmers are not required to have set-aside, although they are permitted to have it. The dividing line between a "large" and a "small" farmer varies according to circumstances; in Denmark it is at approximately 17.62 ha

It is not possible to use permanent grassland for set aside. Fields that are used for set aside must either in the previous growing season have been set aside with support or managed with the purpose of harvesting a COP crop.

It is not possible to transfer the set aside obligation, but farmers can rent land, for the purpose of set aside. According to the Danish agricultural law farmers are in general not allowed to rent agricultural land if the distance from the tenants farm to the rented land is above a certain limit (15 km). If the land is used for set aside (not non food production) this distance limit is dropped. This form of transfer is not possible on a number of small islands.

The fields used for set aside should either be laid fallow or used for non-food production.

Rules for fallow land

Fields used for set aside must be sowed before the 1st of October but at least 14 days after harvest and must be covered until 31st of august the following year. The plant cover should be either:

- grass either pure or a mix of species,
- left over seeds from the previous crop,
- other types of plant species specified in the rules for set aside among these species favourable for the fauna or
- oil radish,

but they must be listed in the appendix of the order.

Farmers are not allowed to use plant protection products or fertilizers (neither mineral or organic) from 1st of October until 31st of August. The fields must not be irrigated. The cover can be cut during the set aside period except from 1st of May to 30th of June to protect nesting birds and other animals. The plant material cannot be used for any agricultural purpose, such as fodder, or be sold or in any other way be subject to income generation.

Non food production

There are no specific restrictions regarding the use of non-food production for set aside. The only difference from a normal production is the obligation for the farmer to have a contract proving that the final crop will be used for industrial purposes and not for food or fodder.

Many farmers find the non-food production more appealing than the fallow. They like to farm the land and they don't like the soil to be unproductive. Never the less many farmers find the rules regarding the contracts very strict and inflexible.

Environmental set aside

Danish farmers have two possibilities for fulfilling the set aside obligation through environmental set aside. The first possibility is to declare an area for set aside, on which an agreement for 20 years environmental set aside; in accordance with the agri-environmental scheme under Commission regulation 2078/92 or in the future Danish Rural Development Programme (Agenda 2000), has been made.

20 years set aside of agricultural land under 2078/92

Year	N ^o of agreements	N ^o of hectares
1994	3	35
1995	11	81
1996	110	906
1997	237	1690
1998	220	1654
1999	245	2173
Total	826	6539

The other possibility is to declare an area on which there has been made an agreement for establishment of forest; in accordance with the forest scheme under Commission regulation 2080/92 or in the future Danish Rural Development Programme (Agenda 2000). The only consequence is that the payment the farmer receives for those areas, will be the same as for 'normal' set aside and not the traditional compensations for loss of income, which is paid for those two measures.

Looking at the effects of the agri-environmental scheme under Commission regulation 2078/92 an evaluation was carried out by Erling ANDERSEN and professor Jørgen PRIMDAHL at The Royal Veterinary and Agricultural University, Denmark, in 1998. The overall conclusion was that the environmental benefits had been very limited. In the evaluation the effects on the landscape management, protection of the aquatic environment, soil management practice, and the biodiversity were examined, the only realised effects were reductions in the use of pesticide and fertilisers. With respect of changes in landscape and soil management practices, the evaluation showed that the agri-environmental schemes have had almost no positive effects, they had been neutral.

7.7 Annex 7. Sampling procedure for the farmers' survey

The Danish Ministry for Food, Fisheries and Agriculture were contacted since it is the owner of a database which covers all farmers in Denmark; The General Agricultural Registrar. From this database a sample of 50 farmers was drawn, distributed in accordance with the existing size structure in Danish agriculture.

Size classes (ha)	Agricultural area	Number of farmers	Number of farmers with voluntary set aside	Number of farmers with non food production	Number of farms selected for interview
0.1 – 4.9	3,956	0	0	0	0
5.0 – 9.9	68,590	1	0	0	0
10.0 – 14.9	76,922	2	0	1	0
15.0 – 19.9	91,634	2	1	0	0
20.0 – 29.9	186,365	4	2	1	3
30.0 – 49.9	374,857	7	6	1	6
50.0 – 99.9	809,347	15	13	3	9
100.0 – 149.9	444,272	8	8	1	5
150.0 – 199.9	219,207	4	4	0	3
200.0 – 299.9	197,291	4	4	0	2
300.0 -	171,607	3	3	0	2
Total	2,644,048	50	33	7	30

In the sample there were 33 farmers, which had a set aside percentage larger than 10 indicating that they have voluntary set a side and 7 farmers, which have non-food production. 30 farmers were selected so that they geographically represented the whole country. All 30 farmers were interviewed.

7.8 Annex 8. Literature on the relation between set aside and environment/landscape

Title	Author (s)	Year
Technical report 00-08 (online) - The Climate of Denmark - Key Climatic Figures, 1990-99	John CAPPELEN, Danish Meteorological Institute – Ministry of Transport	Copenhagen, 2000
Miljøvenlige jordbrugsforanstaltninger og de Særlige Følsomme Områder 1994-96 (<i>Agro-environment schemes and the Sensitive Agricultural Areas 1994-96</i>)	E. ANDERSEN, J. PRIMDAHL & V. SOLVANG Institut for Økonomi, Skov og Landskab, KVL (Dept. of Economics and Natural Resources – FLEC)	Copenhagen, 1998
Agriculture 1999 and online statistics	Statistics Denmark	Copenhagen, 2000
Personal communiqué	Søren Marcus PEDERSEN, Researcher, The Danish Institute of Agricultural and Fisheries Economics	Copenhagen, 2001
Different online statistics	The Danish Institute of Agricultural and Fisheries Economics	Copenhagen, 2001

7.9 Annex 9. Bibliography of set aside literature

Title	Author (s)	Year
BICHEL-UDVALGET Rapport fra Hovedudvalget (<i>Report on the consequences of on out-phasing of pesticides in Danish agriculture</i>)	Miljø- og Energiministeriet	1998
Natur- og Landbrug Temarapport (<i>Nature and Agriculture – opinions on interaction between society and agriculture</i>) nr. 1, 1999	Naturrådet	1999
Bæredygtigt Landbrug (<i>Sustainable Agriculture</i>)	Ministeriet for Fødevarer, Landbrug og Fiskeri - Strukturdirektoratet	1999
Ledsageforanstaltningernes anvendelse – et studie af incitamentsforhold (<i>Use of accompanying measures – a study of incentives</i>) SJFI Working Paper no. 3/1998	Boie S. FREDERIKSEN and Anne H. JOHANNESSEN Statens Jordbrugs- og Fiskeriøkonomiske Institut	1998
Betænkning fra udvalget om: Natur, miljø og EU's landbrugspolitik (<i>Report on Nature the environment and EU agricultural policy</i>) Betænkning nr. 1309	Ministeriet for Fødevarer, Landbrug og Fiskeri	1996
Midtvejsevaluering Vandmiljøplan II (<i>Midterm Evaluation Aquatic Environment Protection Plan</i>)	Danmarks Miljøundersøgelser & Danmarks Jordbrugsforskning	2000
Økonomisk midtvejsevaluering Vandmiljøplan II (<i>Economic Midterm Evaluation Aquatic Environment Protection Plan</i>)	Statens Jordbrugs- og Fiskeriøkonomiske Institut	2000
Non-food produktion fra landbrugsafgrøder (<i>Non-food production from agricultural produce</i>) Rapport nr. 112	Morten GYLLING, Søren Marcus PEDERSEN & Arnold BOON	1999
Possible options for the better integration of environmental concerns into support for arable crops	HOUGHTON, ANDERSEN, MICLET HOLZ, SKURAS, CESARO & KOLKMAN Wye College University of London	1997
Gør livet lettere for vildtet (<i>Make life easier for the game</i>) . Agrologisk 3: s. 26-28	J.P. BERTHELTSEN DMU	1995
Brakmarker som en integreret del af vildtplejen (<i>Set-aside areas as an integrated part of game nursing</i>). I: Alt det nyeste 1995 - Jordbrugsforslaget. s. 33-40	J.P. BERTHELTSEN DMU	1994
Livsbetaelgelser for den vilde flora og fauna på braklagte arealer – en litteraturudredning (<i>Living conditions for wild flora and fauna on set-aside areas</i>) Faglig rapport fra DMU 182	DMU	1997
Hvordan får vi mest natur på brakmarkerne? (<i>How do we optimise the value of set-aside areas</i>) I: Naturen tur-retur.	K. LAUERSEN Skov- og Naturstyrelsen	1995
Status for miljøvenlige jordbrugs foranstaltninger, kortlægning af fremtidige analyse behov (<i>Status for agro-environment schemes – mapping of future needs</i>).	Jens ABILDTRUP SJFI	1999
Kvælstofeftervirkning efter brak (<i>Nutrient-effect of</i>	HANSEN, E.M., DJURHUUS, J.,	2000

<i>set-aside</i> Planteavls Orientering nr. 07.399, 20 juli.	CHRISTENSEN, B.T., KNUDSEN, L., MELANDER, B. Landbrugets Rådgivningscenter, Skejby.	
Landbruget i den samfundsøkonomiske udvikling – Skal landbruget producere miljø eller mad? (<i>Agriculture in the socio-economic development – should agriculture produce environment or food?</i>)	Tove CHRISTENSEN & Jesper S: SCHOU	1999
Ændringer i EU's landbrugsstøtte – virkninger for Danmark (<i>Changes in EU agricultural policy – effects on Denmark</i>)	Aage Walther JØRGENSEN & Lærke FLADER	1994
Landdistrikterne 1950-2050. Beretning fra det 14. bebyggelseshistoriske symposium ved Odense Universitet (<i>Rural areas 1950-2050. Report from the 14. Symposium on historic development at University of Odense</i>)	J. PRIMDAHL	1997
Miljøvenlige jordbrugsforanstaltninger og de Særlige Følsomme Områder 1994-96 (<i>Agro- environment schemes and the Sensitive Agricultural Areas 1994-96</i>)	E. ANDERSEN, J. PRIMDAHL & V. SOLVANG Institut for Økonomi, Skov og Landskab, KVL	1998
LandbrugsNatur (<i>Agricultural nature</i>)	Landbrugets rådgivningscenter, Landskontoret for Planteavl	1999
Levende Hegn (<i>Hedgerows</i>)	H. KNUDSEN & G. VESTERGAARD, Landbrugets Informationskontor	1993
Naturen og Landbruget, Tema-rapport DMU 20/1998 (<i>Nature and agriculture</i>)	J.P. BERTEHELSSEN et al. Miljø- og Energiministeriet, Danmarks Miljøundersøgelser	1998
Ådale – levende landskaber (<i>Vallies – living landscapes</i>)	Miljø- og Energiministeriet, Skov- og Naturstyrelsen	1997
Fire sprøjtefri driftsformer af markens randzoner – konsekvenser for vilde planter, insekter og økonomi, Faglig-rapport fra DMU, nr. 182 (spray free field margins – consequences for plants, insects and economy)	A.B. HALD & T. LUND, Danmarks Miljøundersøgelser	1994
To rotate or not to rotate: Set aside decisions in Denmark	H. RYGENSTAD, J.S. SCHOU, D. Dole. Paper at: The Annual Conference of The Australian Agricultural and Resource Economics Society, University of Queensland, January 1998.	1998
Land Heterogeneity and the Effectiveness of CAP Set Aside	H. RYGENSTAD, R. FRASER In: Journal of Agricultural Economics 47(2):255-260	1996
Spøjtefrie randzoner – Hvorfor?, Hvordan? Hvad koster det? (<i>Sprayfree fieldmargins – Why? How? What are the costs?</i>)	Miljøministeriet, miljøstyrelsen. DMU og Landbrugets Rådgivningscenter	1994