

The Importance of Greater Consideration for Industrial Animals

桑島雄三 株式会社パル・ミート 商品統括部長

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[Slide 1] Hello. I am Yuzo Kuwajima of Pal Meat. Dr. Sato asked me to talk about how the rearing of livestock in line with animal welfare principles can be part of a successful meat product business, so in this talk I intend to focus mainly on that subject. But first of all, let me introduce our coop.

[Slide 2] Pal System Cooperative Union is an association of ten local coops centered on the Kanto region. There are other regions in Japan that have one coop per prefecture. But in Kanto, three or four coop groups are engaged in fierce competition, and Pal System is the second largest coop group in each of Kanto's prefectures. Ever since our establishment, we have centered our business on providing consumers with products direct from the producer. Currently we are proceeding with this "direct from the producer" policy so that people can see clearly when, where and how the products are produced and who produces them. In addition, we are committed to disclosing production records in order to provide our members with safe and secure products. Our current membership is on the order of one million households.

[Slide 3] Another feature of Pal System is that it is essentially a non-store retail home-delivery business that has almost no regular stores. With regard to the catalogs for the home delivery business, while other coops print only one weekly catalog, we publish three different catalogs each week. In this slide, the catalog on the left is for households that have babies or infants, the one in the middle is for households with older children who have big appetites, and the one on the right is for households where child raising is finished - the so-called baby boomer generation. We issue these three catalogs targeted at these different generations.

[Slide 4] Within the group, I am working at a specialized company that is engaged in the purchasing, planning and coordination of meat products.

[Slide 5] Pal Meat handles everything from purchasing to processing through tie-ups with producers across Japan. [Slide 6] Specifically, our Narashino Factory in Chiba Prefecture has a packing center for so-called table meat and dressed meat, and in Yamagata Prefecture, [Slide 7] we have a ham and sausage factory. With regard to the production regions we are involved with, [Slide 8] in the case of pork we handle approx. 100,000 pigs per year from 11 production districts. [Slide 9] In the case of beef and chicken, we deal with 5 production districts, respectively. Each production district has its own characteristic points. [Slide 10] In the case of broilers, we purchase about 4 million chickens annually and our suppliers practice standardized raising using feed that is free from pharmaceutical additives.

[Slide 11] All in all, a theme that the members of our coop have always been highly concerned about is that of residues from drugs - so-called veterinary drugs - and antibiotics, so dealing with this issue has been a major task for us. Put simply, realizing the rearing of healthy animals in a healthy rearing environment in order to reduce the need for drug use has been a consistent theme for our coop.

[Slide 12] Another thing is that we disclose the contents of the animal feed used. Consumers of meat products usually don't know much about how the animals were raised or what kinds of feed or drugs they were given, so we strongly wish to make these things clear.

[Slide 13] We first started to become conscious about animal welfare, which is the theme of this workshop, in 2006. At that time, we invited Dr. Sato and held a study meeting together with meat producers and members

of our coop. Prior to that, although we were not really conscious of animal welfare as such, we were raising local 'shamo' (gamecocks) under a rearing system that controlled the number of birds per 'tsubo' unit of space (3.3m²) along the type of ground conditions introduced earlier by Dr. Ohara. We were also grazing Angus cattle in Hokkaido. In this way, our production was employing rearing methods matched to the psychology of cattle as herbivorous animals. Additionally within our group, since 2006, and together with the production sites, we have established a method of assessing production called the 'livestock production index', which is based on ideas such as appropriate agricultural standards and GAP-like concepts. In this index, we have included items such as what animal welfare measures are being taken. We ask ourselves if feed and water is provided appropriately according to animal welfare principles, etc. Since then, we have developed this method further while repeatedly holding study meetings with our producers. In 2008, we visited Europe to study how animal welfare practices are implemented there. Now we are beginning to implement an animal welfare approach in earnest by, for example, starting the sale of pork from the "welfare challenge" pigs reported on earlier by Mr. Toyoshita.

[Slide 14] Regarding the local shamo that I mentioned earlier, Core Food produces 30,000 each year and these birds have been raised in this sort of environment since before we began to specifically implement animal welfare measures. [Slide 15] Beef production is interrelated with our sales method based on a system under which 150 cattle are registered each year and about 12 head are sold each month with the meat being purchased by coop members who wish to eat it and who have registered for a half-year period. The meat from the 12 cattle is split among these approximately 4,500 members each month.

[Slide 16] This item, which incorporates consciousness concerning animal welfare, is one of the items in the livestock production index. Its major emphasis lies in the idea of reducing the stress experienced by livestock. We anticipated that this would lead to a reduction in the use of veterinary drugs. According to a number of

veterinarians, reducing stress among livestock leads to a reduction of mortality and an improvement in meat quality. We used to consider that if we were to proceed with animal welfare, it would only result in higher costs, but nowadays we consider that, while implementing animal welfare may be a roundabout way of doing things, it can actually lead to lower costs overall. However, we also consider that even if animal welfare does not lead to lower costs, it is still something we should be undertaking. In this respect, there is no need for us to be slaves to convention.

[Slide 17] The livestock production index means that the producers themselves participate and are involved in establishing standards, setting out the checking items in the various production and rearing processes, checking whether the disposal of wastes is being performed appropriately, etc., and confirming these items. Through this, the producers can improve their performance comprehensively on their own.

[Slide 18] In concrete terms, there are approximately 50 items in the index and they are each classified as Level A, B or C. Level A consists of matter-of-course items that we want the producers to implement without fail, such as organizing rearing management records. Level B consists of items that we want the producers to implement if at all possible, so we set up suitable opportunities for agricultural workers to learn how to do so. And Level C consists of items we want the producers to make an effort to implement, such as using non-GMO feed, improving the self-sufficiency ratio of feed such as by using local rice, and other things that present slightly higher hurdles. Each index item is common to all kinds of livestock, and we are currently tackling them in raising different kinds of livestock such as pigs, egg-laying chickens, etc.

[Slide 19] In creating the index, we set out animal welfare as a goal. Back in 2006, when we heard about animal welfare from Dr. Sato, we took the matter seriously. For those who are handling industrial animals or engaged with livestock, animal welfare and animal feed self-sufficiency really are important issues. Concerning the feed self-sufficiency issue, consumers

are almost totally unaware that most of the feed given to livestock that is raised in Japan is imported. Also, aside from the issue of animal welfare itself, we were hesitant about proposing animal welfare to consumers because we felt that, if they were unaware of how livestock was currently raised, to suddenly raise the issue might create confusion.

[Slide 20] However, we refined our idea as follows. Under the current situation, in which meat eating is very popular, from the standpoint of providing dietary education for children it is very important to raise livestock properly and healthily and to keep the animals happy while they are alive; and it is very important that we face this issue.

[Slide 21] In the light of the above, since 2007 we have been verifying the biobed rearing system that Dr. Kohari and Mr. Toyoshita explained earlier. This is an EU standard, and recently the Japanese government announced a management guideline as well. [Slide 22] We consider that although we don't have to accommodate everything, we need to prepare our own guideline based on Japan's current situation, and also to make it conform to this EU standard to a certain extent so that we can explain Japanese-style animal welfare with reference to EU standards too.

[Slide 23] Now I will explain about "welfare challenge" pork. These pigs are raised on a biobed, a rearing method that is expected to satisfy the pigs' basic behavioral needs with respect to digging the ground, etc., thereby allowing them to exhibit normal behavior. However, the argument as to whether or not using a biobed is an animal welfare measure has not yet been resolved in Japan. So, in the sense of tackling animal welfare, we have positioned meat from biobed-raised pigs as "welfare challenge" pork and are marketing it as such.

[Slide 24] Since we are running short of time, I can't explain in detail, but this pork is raised in a way that takes account of animal welfare, [Slide 25] and at the same time, we are trying to improve the self-sufficiency of the feed used as well. Currently, we are endeavoring

to raise the domestic self-sufficiency rate of the feed we use and become more self-sufficient in making our own feed. [Slide 26] We are considering making use of abandoned cropland by letting pigs run free in such fields, so that instead of spending several million yen on engineering works, [Slide 27] we can employ pig power to clear the land and improve the soil and at the same time improve our feed self-sufficiency.

[Slide 28] These slides show the actual leaflet we issued when we launched what we call "welfare challenge" pork and began laying out the principles of animal welfare we were following. [Slide 29, 30, 31] In this leaflet, as Pal System's new approach, we explained about Porkland's new efforts and the background details, and we declared that Pal System was tackling the animal welfare practices described in the leaflet.

[Slide 32] As for the sales record of "welfare challenge" pork, despite being sold at a higher unit price than ordinary pork, the product is selling about 10% more. Actually, this year has been extremely tough for the livestock business. As you are aware, market prices have fallen steeply. For example, when the price of pork carcasses dropped below 400 yen, our direct from the farm pork price was set about 100 yen higher at 490 yen. We set the retail price to reflect the purchasing price, given that the sales environment was very severe. Even under this situation, this "welfare challenge" pork, as well as pork from pigs raised on rice feed, had more support from our customers than ordinary pork. The price of this pork is set at 65 yen higher per 100g than ordinary pork in the case of ham for 'shabu-shabu' (thinly-sliced meat dish), and at 11 yen higher per 100g in the case of pork loin. As Mr. Toyoshita said earlier, costs have not risen actually. But although costs have not risen, from the standpoint of maintaining consistency with other specialized pork products such as pork raised on rice feed, etc., we considered how things would be if we priced "welfare challenge" pork this high.

[Slide 33] Regarding the purchasers' age structure, the overwhelming majority of purchasers are middle-aged or older. Since before, there has been a tendency for

products emphasizing this kind of concept to be less easily accepted by the younger generation. A similar tendency is evident with respect to organically grown food products, with the vast majority of purchasers being in the 40s, 50s or 60s age groups. We would like to further expand sales of such products among consumers in their 30s and 40s.

[Slide 34] Regarding the tasks that lie ahead in animal welfare, we keenly feel that not enough discussion has yet taken place. First of all, we would like to proceed with proper meat-eating education in today's "meat-eating" culture. [Slide 35] Rather than have them paying attention to how nicely packed their meat products are, we'd like people to approach their dietary life by including whole livestock products. As part of our effort to realize that, we hold study meetings at about 200 locations each year. [Slide 36] For example, the pork dissection study meeting shown here consisted of a demonstration in front of a group of coop members.

[Slide 37] As for our second future task, we would like to be involved in domestic certification based on Western standards. It is important that Japan does not depart too much from Western standards. On the other hand, if Japan establishes its own standard departing significantly from those of Western countries as a Japanese-style standard, the reasons for the differences must be clarified. [Slide 38] According to British farmers, they considered that implementing animal welfare would result in lower costs. There was an idea that raising livestock out of doors rather than in large-scale facilities would form part of a solution. [Slide 39] Concerning this issue, as I mentioned before, we think we have to implement animal welfare in any case, but we will definitely conduct research into possibilities for cutting costs.

[Slide 40] I told you before that we hesitated to challenge this animal welfare issue at the beginning, and even now that hesitation has not completely disappeared. However, even though problems remain, if a sense of aversion develops between consumers and livestock raisers due to a lack of common understanding, it will become difficult to proceed to the

next stage. So it is essential for us to take the risk of engaging in communication concerning this subject. [Slides 41, 42, 43, 44, 45, 46, 47]

That concludes my report. Thank you very much for listening.

パルシステムにおける アニマルウェルフェアの取り組み

神戸アニマルケア国際会議
2009年12月12日
株パル・ミート
桑島雄三

【Slide 1】

(株)パル・ミート(会社概要)

生産者の思いを組合員へ伝える パル・ミートの事業

飼育・育成・処理
生産地

加工
(株)パル・ミート
ー専業加工工場

仕分け・配送
セットセンター

→ 組合員へ

パル・ミートは生産者と提携して、パルシステム生活協同組合連合会の生協組合員へ「安全・安心」で「おいしい」肉を届ける目的で設立されました。当社の工場は、飼養管理された国内産産地の原料肉を主体に国内産のみを使用し、全国トップレベルの設備とHACCPに準じた厳格な衛生管理基準のもとで製品を製造しています。


設立	1979年
事業高(2007年度)	135.8億円
従業員(2008年4月時点)	社員64名、契約社員30名、パート社員247名

【Slide 5】

パルシステム連合会の組織概要

パルシステム生活協同組合連合会

- ◎1都8県(東京・神奈川・千葉・埼玉・茨城・山梨・群馬・福島・静岡)の10の地域生協が加盟する事業連合組織
- ◎創立当初から、「産直」を事業の柱としてきた。
- ◎1990年に全国の生協に先駆けて、「個人宅配」をスタートさせ、商品カタログを軸に「個人対応型くらし課題解決事業」を展開。
- ◎グループの事業高1762億(2007) 組合員数は約100万世帯。



【Slide 2】

(株)パル・ミート(習志野事業所:千葉県)

近代的な製造機器を完備し、 高品質の製品を製造、加工しています



習志野事業所(現工場)は2002年4月に建設された。国内でもトップレベルの近代的な製造機器を完備した工場です。冷蔵牛肉・冷蔵豚肉の食味を重視した高品質な製品を製造、加工しています。[現状日量5万パック製造]

【Slide 6】

事業そのものを「食育」ととらえる。 3つの媒体による情報型商品事業を展開

ライフステージに合わせた3媒体による「くらし課題解決事業」と定義し、商品のカタログを通じて毎週約170万人に約600品の食品(食品+生活用品)と情報を提供。



YUMUYUM 雑誌
「赤ちゃんができた!」
家庭向け7,約10万部



my kitchen
主一人暮らし、持ち家の
家庭向け7,約46万部



Kinari 雑誌
「大人の暮らしを大事にしたい」
家庭向け7,約16万部

pal-system

【Slide 3】

(株)パル・ミート(山形事業所:山形県)

国産豚肉100%、 化学合成添加物不使用のハム・ソーセージを実現



山形事業所は「子供たちに安全でおいしいハム・ソーセージを食べさせたい」という思いから、生産直営のハム工場として設立されました。その理念を実現するために、ハム・ソーセージの原料肉は国産豚肉100%で、化学合成添加物は一切使用していません。製造工程もすべて明らかにすることで、生産直営だからこそその安全・安心を実現しています。[現状:日量2万パック製造]

【Slide 7】

パルシステム(グループ会社)

パルシステム連合会のグループ会社

社名	事業内容	出資比率
(株)パル・ミート	牛・豚等の精肉加工、ハム・ソーセージ等加工食品製造および加工	100%
(株)ソービーエス	農産物・米の仕入れ、企画、販売、物流業務および農産品の加工	100%
(株)パル・ブレッド	パンおよび菓子類の製造	100%
(株)コブネクスト	通信販売、情報提供サービス、情報システム等の企画、設計、販売、保守	60%
(株)パルふれあいサービス	保険代理店業務	20%
(株)エコサポート	古紙等のリサイクル事業、肥料・飼料の調製および販売等	40%
(株)パル・メッセージ・サービス	商品案内・注文・商標および輸送などの丁合、ラッピング業務等	100%
(株)パルライン	首都圏地域生協の配送および個人別セット	94%
(株)オルター・トレード・ジャパン	食料品および日用雑貨品の輸出入と販売他	36.4%

【Slide 4】

パルシステムの豚肉産産地(年間約10万頭)

豚本来の生きる力を信じ、 健康に育てる。 おいしさと安全の基本です。



パルシステムの豚肉の産産地は、現在11カ所。それぞれ土地柄も生産規模もさまざまですが、どの産地でもおさの内容を明らかにするなど、「産産ルール」によって、より健康な豚を育て、より良い肉をご提供しよう、日々努力を重ねています。



- 豚肉の産地一覧
- ① 伊豆半島
- ② 山形県
- ③ 宮城県
- ④ 青森県
- ⑤ 山梨県
- ⑥ 長野県
- ⑦ 静岡県
- ⑧ 岐阜県
- ⑨ 愛知県
- ⑩ 徳島県
- ⑪ 高知県

【Slide 8】

パルシステムの牛肉産産地(年間約2400頭)

徹底した安全管理で、牛が食べたえさまでわかるから安心して食べて欲しい。

パルシステムの産産牛肉は、だれがどう育てたかわかるだけでなく、産地からみんなの食卓に届くまでの流れが明らか、おいしい牛肉をいつも安心して食べて欲しい、それがパルシステムの願いです。



牛肉の産地一覧

- ① COOPソーザンベーム産産協議会 (35~2000年産産)
- ② COOPソーザンベーム産産協議会 (ホクダクファーム)
- ③ COOPソーザンベーム産産協議会 (社営肉牛産産)
- ④ 徳島産産
- ⑤ 伊予産産

【Slide 9】

パルシステムにおける
アニマルウェルフェアの取り組み

- 1990年:しゃも取扱(坪当羽数約33羽におさえ、土の上での飼育)
- 2000年:ふーどの牛肉取扱(草食動物の生理にあった放牧飼育)
- 2006年:佐藤衆介教授講演会
- 「アニマルウェルフェアの論議と世界の動き」
- 2006年:「畜産生産指標」にアニマルウェルフェアの項目設定
- 2007年「今、畜産が変わろうとしている」学習会
- 大村茂氏(全農SR事務局)豊下勝彦氏(ポーランド)
- 2008年「生産者と消費者が協同でつくるアニマルウェルフェア」
- 「農経界」に発表
- 2008年:ヨーロッパのアニマルウェルフェア視察
- 2009年7月:「ウェルフェアチャレンジ」発表
- 2009年11月:「アニマルウェルフェア指針」学習会
- 佐藤衆介教授・大井獣医・坂井獣医

【Slide 13】

パルシステムの鶏肉産産地(年間約400万羽)

生産者の不断の努力によってたどりついた「飼料に薬を添加しない飼育」という答え

一般的なプロイラーは、休業期間7日(飼料に抗生物質を添加しない期間で、法的に定められています)という基準で飼育されています。パルシステムの産産鶏は、徹底した衛生管理と鶏舎環境の整備など、生産者の日々の努力により全飼育期間で抗生物質を飼料に添加しない飼育体系を実現しています。



鶏肉の産地一覧

- ① 徳島産産(有限)キーンエ
- ② 徳島産産(有限)キーンエ
- ③ 徳島産産(有限)キーンエ
- ④ 徳島産産(有限)キーンエ

【Slide 10】

コアフードの地鶏しゃも(年間約3万羽)



1m当たり飼育羽数
10羽以内

太陽光と自然の風が入る環境

【Slide 14】

産産産地(生産の特徴1)

特徴1 薬に頼らないために

豚はわずかな環境の変化でもストレスを受けやすく、病気にかかりやすいデリケートな動物。そのため一般的には、病気予防目的で法定休薬期間ぎりぎりまで飼料に抗生物質を添加する場合があります。しかし、パルシステムの産産産地では、できるだけ薬に頼らない飼育をめざし、衛生管理・温度管理の徹底や豚舎の密度を抑えるなど、飼育環境を整えて豚のストレスを軽減し、自然治癒力や免疫力を高めることに努めています。




【Slide 11】

コアフードの牛肉(年間150頭を4500人の登録者で)

「ふーどの牛肉」はアンガス種またはアンガス系統種[※]の牛肉です。アンガス血統の「粗飼料でも太りやすく、放牧に適している」という特徴を活かし、効率よりも牛の健康を重視し、広い牧場でゆっくりと育てています。

※生産の大部分はアンガス種(純血種)ですが、過去の登録等において別の品種が掛け合わされる事例もあるため、産産協議会ではアンガス血統が50%以上であることを「ふーどの牛肉」の条件とすることを内規として決めています。



【Slide 15】

産産産地(生産の特徴2)

特徴2 飼料の内容を明確に

各産地では飼料の研究を行うことなどで、美味しい豚肉を生産するための努力を行っています。飼料の大部分は海外からの輸入に頼らざるをえないのが現状ですが、内容をすべて明らかにしています。




【Slide 12】

家畜のストレスを軽減「アニマルウェルフェア」

- パルシステムでは2007年に、アニマルウェルフェアを「畜産生産指標」の項目として盛り込みました。アニマルウェルフェアを導入することで、家畜のストレス軽減やそれによる動物性医薬品使用および死亡率の減少、肉質の改善などが期待されます。欧州と環境の異なる日本型のアニマルウェルフェアの形を、生産者とともに検討・研究を続けています。

【Slide 16】



【Slide 25】



【Slide 29】



【Slide 26】



【Slide 30】



【Slide 27】



【Slide 31】



【Slide 28】

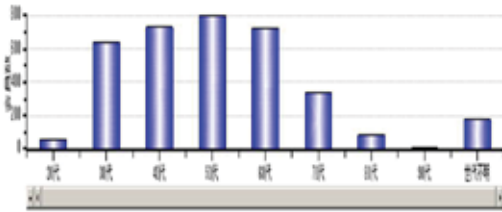
「ウエルフェアチャレンジ豚」受注結果

通常の産直豚より
単価が高いにも関わらず110%伸張した

- 7月2回産直産直通信において、ウエルフェアチャレンジ豚を企画しました。
- 評価は、比較条件が難しいが、下記のとおりと比較で算出すると、通常の産直豚より、単価が高いにも関わらず110%伸張したといえます。
- 企画は、別チラシ全媒体であるが、本紙はキナリのみのため、別チラシのみの場合は通常点数の30%となる。
- 千手しゃぶしゃぶ用(498円/200g)：通常組価(460円/250g)と100g単価は65円高く設定。
- 受注点数11,560(通常8600) (Y2000+M1万) × 0.3=3600+K5000=8600
- ローズしゃぶしゃぶ用(498円/150g)：通常組価は(474円/200g)と100g単価は11円高く設定
- 受注点数6145(通常7360) (Y1200+M1万) × 0.3=3360+K4000=7360
- 計 受注点数17705(通常15960)

【Slide 32】

ウェルフェアチャレンジ豚 購入者の年齢構成



【Slide 33】

今後の課題2「欧米基準をふまえた国内認証の整備」
イギリス国産豚肉は(プリティッシュポーク)として品質保証マークをつける
イギリス国内法では、①去勢してはならない②ストールで飼ってはならない③首をつないではならないことになっている。これに適合する豚は第3費(MLC)が検証し、生産者とPPAでラベルを発行する(デンマーク産をメイドインUKと偽装される事件が発生した)



【Slide 37】

「ウェルフェアチャレンジ」コアフードの牛肉・地鶏しゃも」が果たすべき役割

「資源循環型・環境保全型を掲げる農業・食糧生産の方式の中で、最も成功した事例として、生産者・消費者が誇りを持ってこれの生産・消費に関わり、より多くの人の理解を得ながら、この生産方式を広げること。」

これが果たすべき役割と考えます。

自給飼料拡大とアニマルウェルフェアへの挑戦も同様です。

まだ、パルシステム全体の事業の中では、少ないですが、着実に支持をひろげていきたいと考えています。(牛肉2400頭中155頭、鶏肉425万羽中3万羽、豚肉8万頭中400頭)

【Slide 34】

今後の課題3「コストダウン」

- ・ 英国の養豚家は1000年、動物福祉がコストダウンになること気づいた。
- ・ 日本産畜は古い豚舎を建てた。経営が良く立替が少なく、しかもコストを下げるのが課題である。繁殖豚を多く飼うための解決策である。
- ・ ①建物外立する経費が10%で毎年1割増える。建物11万円で10年、外で飼うと4000円で済む。
- ・ 1000年、豚糞が肥料は増える。鶏1羽は糞1kg、豚1頭は糞10kg、豚1頭は糞10kg、豚1頭は糞10kg、豚1頭は糞10kg



【Slide 38】

今後の課題1「いのちをいただくことに感謝する」食育



「豚の丸焼き」の真実
(さきかみサマーキャンプ)

【Slide 35】

今後の課題4「国内畜産業への理解促進 EU基準には至りませんが、日本国内の養豚家も 従来より豚を健康に育てることに努めています



【Slide 39】

パルシステムでは畜産の学習会や試食会を年間200箇所で開催しています(日本におけるアニマルウェルフェアに関する論議は欧米に比べ、まだ未成熟では)



豚の解体学習会

【Slide 36】

愛護とは他人に言われてやるようなものではない
大事なことは、何かの犠牲の中で生きていかなければならないという事実をよく知り、その犠牲に対して、感謝の気持ちを失わないこと



【Slide 40】

輸入飼料に依存する国内畜産の現状

農水省生産局畜産部畜産課「自給飼料をめぐる情勢」平成17年5月より

品目	品目 自給率	飼料 自給率	カロリー 自給率
牛乳・乳製品	69%	42%	29%
牛肉	39%	26%	10%
豚肉	53%	9.7%	5%
鶏肉	67%	9.7%	7%
鶏卵	96%	9.7%	9%
畜産物計	67%	24%	16%

[Slide 41]

自給飼料へのチャレンジ



A 4 M :J :EA F

荒れ果てる耕作放棄地



A 4 M :J :EA F

09年はこめ豚で、約83haの減反田や耕作放棄地を飼料米の田んぼに蘇らせ、約490トンのどうもろこし輸入を減らします。

年度	上段:作付面積・収量 下段:こめ豚飼育頭数	備考
07年飼料米 =08年こめ豚	11.2ha(56t) 2,800頭	軽米5ha 鹿角6.2ha
08年飼料米 =09年こめ豚	14ha(73.7t) 3,446頭	新しいわて(軽米)5.8ha 鹿角8.2ha 09年に追加生産1400頭(国内の飼料米手配)
09年飼料米 =2010年こめ豚	83ha(489t) 18,000頭	「こめ豚」向けは鹿角40ha+新田開拓17ha。 「こめ豚」向けに新しいわてら、09年で4万羽計画。 その他、地産でも、高知県とんぼなどの地元でも飼料米開始。

A 4 M :J :EA F

減反政策で、先祖伝来の田んぼにお米がつかれない



A 4 M :J :EA F

パルシステム提携産地全体では09年度から2010年にかけて1,313t以上の輸入穀物を自給飼料に転換予定

品目	重量(t)	取組畜産産地
飼料米	1,073	ポーランド、米沢郡、トキワ養鶏、やさと、花見園までっこ、首領園とんぼ、北浦しゃも
規格外米	180	米沢郷
規格外小麦	54	ホワイトファーム
規格外大豆	6	北浦しゃも

A 4 M :J :EA F

飼料米として蘇った水田

2008年7月鹿角市小坂町(ポーランド飼料米田)



A 4 M :J :EA F