The cows are in a joyful mood grazing in the fields. When winter ends the cows look forward to munching on the fresh new grass. They look over the fence into the pastures and dream of fresh spring grasses and long summer days munching and just “hanging out” with their friends.

Often we have found a group of them on top of the hill watching the sunset and catching the evening breeze. Since cows are sociable animals, they are seen grazing in groups. The bottom picture shows Bhumi talking with her girlfriends. Gita (top Picture) and Vraja consider themselves the kings of the herd. They are bigger and taller than any of the others and often remind the others of this fact. They are very protective of their group and can often be seen associating with the girls of their choice.

There are 67 cows (oxen included) at Vrajapura Farm during this season. In the winter there are 24. Now that we have acquired an additional 80 acres, the cows are guaranteed sufficient grazing land. It makes us very happy to see how happy they are, and we thank you our members.
International Society for Cow Protection, INC. (ISCOWP)

ISCOWP Profile
ISCOWP was incorporated in the state of Pennsylvania, U.S.A., March 1990, as a non-profit educational organization. William and Irene Dove (Balabhadra das and Chayadevi dasi) are its managing directors. They are disciples of His Divine Grace A.C. Bhaktivedanta Swami Prabhupada, the Founder Acharya of the International Society for Krsna Consciousness (ISKCON). Through their spiritual master’s teachings, they have imbued the practices and benefits, both spiritual and material, of lifetime cow protection.

ISCOWP's primary concern is to present alternatives to agricultural practices that support and depend upon the meat industry and industrialized, petroleum powered machinery. To this end, ISCOWP trains oxen (male cows or steers) to replace farm machinery and thereby show an alternative to their slaughter. The tenets of cow protection and ox-power are universal and nonsectarian, available to all regardless of race, creed, or nationality.

ISCOWP Goals
1) To systematically educate all people in the practice of cow protection in order to check the imbalance if values in life and to achieve real unity and peace in the world.

2) To bring the members of the Society together with each other, thus developing the idea within the members, and humanity at large, the great necessity and benefit of recognizing the cow as the mother who gives milk to the human society and the bull as the father whose labor in the field produces food for humanity in the form of grains and vegetables.

3) To teach and encourage peaceful dietary practices based on lacto-vegetarianism.

4) To establish branches of the International Society for Cow Protection Inc. and encourage any organization that complies with this charter.

5) To bring the members closer together for the purpose of teaching and establish-
Letters

Straw-bale Construction

From: Radha.Krsna.ACBS@com.bbt.se
To: Agriculture.and.the.Environment@com.bbt.se
Cc: Smita.Krsna.Swami@com.bbt.se; Akhandadhi.ACBS@com.bbt.se; Radhanatha.SDG@com.bbt.se
Subject: Straw Bale Construction
Date: Monday, June 15, 1998 4:48 PM

Straw-bale construction is a very viable proposition for devotees. It has been used most extensively in New Mexico. I am now involved building in this way as it is the cheapest system and has a very beautiful effect. I have recently attended a course. And the lime plastering course is in two weeks.

Buildings found in America have been found to last up to 150 years. It appears that it is much healthier accommodation as the walls, roof etc., breathe, rather than being sealed, thus preventing condensation.

The insulation properties are second to none as it has high thermal mass and low thermal conductivity.

The techniques involved are very simple and very sustainable. No concrete need be used anywhere in the construction. And from what I have seen it would appear that such a construction is more earthquake proof than a conventional building.

From what I have heard about 'vastu sastra' this type of building is very good as for one thing there are no square corners, everything is rounded. The roof, which is normally made with wood construction and straw is however the most square thing. To break the square lines is good by adding dorma windows etc. In Ireland there has been a round house constructed. It is said to be the most beautiful building in Ireland.

It is ideal work for community groups as only one skilled person need be present, until you get to the roof. In one day the walls of the average sized bungalow can be erected by a good team.

Two storey buildings have also been built with this system. Straw-bale houses have already passed the planning and building regulations in the U.K.

I think it is a wonderful method where straw is a cheap, abundant byproduct, in an environment that has a low per annum rainfall and a low annual rate of freeze/thaw cycles.

From: iscowp <iscowp@ovnet.com>
To: Hare.Krsna.dasi@com.bbt.se; Cow@com.bbt.se; Akhandadhi.ACBS@com.bbt.se; Agriculture.and.the.Environment@com.bbt.se
Subject: Re: Straw Bale Construction
Date: Wednesday, June 24, 1998 12:07 PM

Hare Krsna dasi wrote:

< I thought that members of the COW conference might be interested in this note from Akhandadhi prabhu. Also, I wondered about an update from our Minister of Cow Protection and Agriculture, Balabhadra prabhu, if we could have an update on the progress of his own straw bale house in New Vrndavana? >

> Dear Radha Krsna prabhu

> Haribol. I also have been attracted by straw-bale construction. I think it may have its application in some places. I also heard from Yamuna that Prabhupada had suggested building houses from straw.

> Akhandadhi das

> Mayapur, India>

Yes, straw-bale construction is a very valuable building technique. It utilizes a product (straw) which most grain growers consider as a waste product. If a dairy farmer grows grain he uses the straw for bedding for his animals. If a grain grower doesn’t have any dairy animals, or a local market for straw, he will consider the straw as a waste product and usually burn it as it lays in the field.

My initial interest in using straw as a building material was in trying to show the usefulness of the oxen. In the Srimad Bhagavatam, Srila Prabhupada explains that the duty of the bull is to plow the agricultural fields and grow the food grains. The byproduct of small grain production is straw. Srila Prabhupada has also told us that there are different problems that we are needing to solve.

1) Where is food?
2) Where is shelter?
3) Where is cloth?
4) Where is medicine?

So by using the oxen to show the living example of the Bhagavatam these first 2 problems can be partially solved by the production of grain and straw. In America in the early days of the settler, there were certain areas such as Nebraska which are called "The Plains States" or "Prairie States". They were open fields basically with few trees. The first settlers in these area built "Sod" homes and as they got settled in they grew grain and hence were supplied with an abundance of straw. They baled the straw into square bales of almost 50 to 60 pounds and stacked them similar to the laying of bricks.

These early straw-bale houses were built with very little wood (as there was very little wood available) and the walls themselves became load bearing walls which held the roof system. This style of straw-bale house today is called "The Nebraska Style" which indicates that the straw bale walls are load bearing.

The straw-bale house we are building has a basement and a story and a half above the basement. We have built the basement walls out of concrete as the back wall is 8' into the hillside with a South/East facing front wall. Our land has at least 20 springs and even above the house site we had several people "douse" the land and there were mineral veins of water directly behind the house and the hillside.

There are instances of straw bales being used for underground (buried) basement walls, but it is not recommended as the main enemy of straw bales is Moisture. We used poured concrete walls as it was one constant pour with no seams for leaks such as in cement blocks. We have a French drain on the 3 buried sides of the house and on the back
walls we back filled with 20 tons of gravel instead of the clay loam soil that we have. By using the gravel, the water will not collect in the clay and push the back wall in or crack it. The gravel provides a easy drain field for the water and the French Drain carries it away from the house.

Although the basement is built along conventional means we are looking forward to the next phase which will be with straw bales. We will use a post and beam structure with the straw bales as "infill" for the walls and the ceiling will also have straw bales as insulation.

We have been interested in this way of building since 1993. When we went to Belarussia in the thee summer of 1994, I took videos and literature for them to look at and study. Needless to say they were very interested.

If anyone is interested in this style of building, I highly recommend that you subscribe to a magazine called "The Last Straw". The last issue to come out was devoted to "Moisture". It is put out by the people who have been pioneering the strawbale revival here in America. Each issue is loaded with invaluable information. One issue is dedicated to Mud and other finishes for sealing the straw bales against the elements. There are other books and videos available.

I'm glad to see that some others in the devotee community are showing interest in this style of building. I think also that there is a straw-bale house at Saranagati community in British Columbia. 

There are workshops galore in America and now in many other countries workshops are becoming available.

Bulls plowing, grain growing, straw building - warm in the winter, cool in the summer, all pleasing to Srila Prabhupada. Bulls are the basis, Utility is the principal.

You can get the Last Straw newsletter in USA, $28/year in USA, $33 a year for Canada, $43/year for outside USA & Canada thelastraw@igc.apc.org

This is a very detailed, instructive, comprehensive, updated publication dealing with reports of hands-on activity in straw-bale construction. This publication is a must for anyone who is really interested in this form of building. Balabhadra das

The Last Straw Production Team
P.O. Box 42000
Tucson, Arizona 85733
$28/year in USA, $33 a year for Canada, $43/year for outside USA & Canada

Pain Killer
A very good pain reliever and antiseptic dose for the event of castration is homeopathic Arnica potency IM. A dose can be given, one before and one after. A dose for a bull (or cow) being a 1 dram bottle of small glucose pills with 15 drops of the medicine in it and put it in his mouth.

For myself, I've had very good results with Arnica. I had a very bad fall on concrete and thought I would not be able to walk, I was in such pain. I felt fine (2 hours later) and I never came out in any bruise either. Others also have such experiences if total relief after injury.

Where to get Homeopathic Medicines:
Medicines in potency can be ordered from a company such as: Boericke & Tafel 1011 Arch Street Philadelphia, PA, 19107 1-800-272-2820 or Standard Homeopathic Co. P.O. Box 61067 LA, CA, 90061 1-800-624-9659

It is cheaper to order liquid medicine, sugar pills, 1 dram bottles and make your own doses.

Maggot Wounds
Our two Jersey bulls had developed maggots wounds in our absence which were really bad. The maggots were expelled by pushing crushed Sitaphal leaves into the wound and then I bathed them twice a daily and put ayurvedic ointment and now they are fine. I refused penicillium injections as I knew they were not needed. The Jerseys are very gentle, lovable, and easy to handle. I didn’t need any help.

Top - in 1995, ISCOWP grew rice (beginning to grow in forefront) and rye (background) in North Carolina. The fields were prepared by ox-power. The byproduct of small grain

Right - Here the rice grown in North Carolina is being separated from the stalk by hand into the bucket and the bulk of what you see remaining is straw. Straw is considered a waste product, but it can be used to build homes.

Some Natural Remedies (Labangalatika dasi)

Eyes
On our return a few animals had eye infections. In the West they call it “Keratitis”. The cornea goes white (ulceration) and the eye is red, inflamed, and discharging. But homeopathy cleared it up in a few days. I also bathed their eyes with a lotion made from Trifala powder (2 tsp. steeped in a glass of cold water overnight and strained through 4 layers of cloth). For the homeopathy remedy, I exactly followed the book “Treatment of Cattle by Homeopathy” by George McLeod and it works well here.
### Hoof and Mouth
I also refused foot and mouth vaccination as I am convinced it just poisons their bloodstream and immune system. I gave instead a homeopathy dose of Kali 100/200 C as prevention once a week to all the animals as the disease has broken in this area.

### Spray for Orange Trees
I would like to add, we are using “Panca Gavya” as a spray on our orange trees this year. It is the five products of the cow often used in ayurvedic medicine and also offered by the cows to Goddess Lakshmi when she appeared from the churning of the Milk Ocean by the demons and demigods (see Bhagavatam 8th Canto). The ingredients: 40 parts cow urine, 48 parts cow dung, 5 parts milk and curd each, 2 parts ghee (parts = volumes) 2% salt and a little gur or 0.01% yeast as a starter. Let it sit for 10 days. Dilute 10 times water and strain and spray. Residue is for root treatment.

### Weaning a Calf From its Mother

**From:** Devaprastha.SRS@com.bbt.se  
**To:** Hare.Krsna.dasi@com.bbt.se  
**Cc:** Cow@com.bbt.se>

Subject: Weaning a calf from its mother  
Date: Sunday, May 10, 1998 12:39 PM

Regarding how the mother responds when the calf is weaned, our general experience at Bhaktivedanta Manor (ISKCON center in Great Britain) is that usually there is practically no response. By the time the calf is 7 months old, which is the time we wean the calves, the calf is not that anxious to drink milk and similarly the mother is not that anxious to be suckled by her calf. A calf that big can sometimes be a nuisance to mum. At this stage the milkman has to push the calf out of the pen and towards her mum for feeding. The calf will drink its milk and then walk back into the pen. Not always but very often.

The point I am stressing is that there is practically a different type of relationship between mum and calf at this stage so when one day the calf isn’t actually let out to suckle generally the mother hardly acknowledges the absence.

Sometimes a mother may give a moo and look but then she goes about her business. Now we have a number of cows and so the mother has plenty of company. If the herd comprises only mum and her calf then weaning will/may be more traumatic.

Regarding the mother cow not letting down her milk without having the calf present. You mentioned the example Srila Prabhupada gave about having to present the stuffed calf born dead to trick mum into letting down. I have heard from a devotee who worked at Vrndavana goshalla for a number of years, and he told me that Indian cows do not let down unless the calf gives the initial suckle to the udder. The cows we have usually will let down even if the calf hasn’t had the first suckle. Some will hold back unless the calf has a suckle first but that is not general.

During the summer months, make sure your cows have sufficient water. Due to the heat they will drink more than in the win-ter. In this photo, Vraja is drinking from a trough placed in the pasture.

### Comment:
Yes this is true, those cows of the Bos indicus species exhibit this trait, they are also extremely protective of their charge. The Bostaurus species does not exhibit these traits in general although you will find individuals like this on occasion. The crosses between the two species (they do not exhibit enough distinction to really be called different species, but they are distinctly different) show an even wider variation. The first cross exhibit

Our calves always (exceptions granted) suckle after the milking, so there is no general difference for mum until the end when the calf is not brought out to her after weaning.

Syamasundara dasa  
Bhaktivedanta Manor  
England

Madhava.Gosh.ACBS@com.bbt.se  
To: Cow@com.bbt.se>  
Subject: Re: Weaning a calf from its mother  
Date: Sunday, May 10, 1998 1:39 PM

> We have found that the calf having first suck isn’t necessary for our cows.

Even if you don’t let the calf have the-first suckle after it is born, it is important to save the first milk that is milked out as it is colostrum, a special milk that is loaded with beneficial bacteria or something that jump starts the calves digestive and immune systems.

**From:** WWW: Rohita (Dasa) ACBS  
(New Talavan MS - USA)  
<talavan@com.org>  
To: Cow@com.bbt.se>  
Subject: Re: Weaning a calf from its mother  
Date: Sunday, May 17, 1998 5:59 PM

On 10 May 1998, Syamsundara wrote:  
<. a devotee who worked at Vrndavana goshalla for a number of years told me that Indian cows do not let down unless the calf gives the initial suckle to the udder. The cows we have usually will let down even if the calf hasn’t had the first suckle. Some will hold back unless the calf has a suckle first but that is not general.>

Comment:
Yes this is true, those cows of the Bos indicus species exhibit this trait, they are also extremely protective of their charge. The Bostaurus species does not exhibit these traits in general although you will find individuals like this on occasion. The crosses between the two species (they do not exhibit enough distinction to really be called different species, but they are distinctly different) show an even wider variation. The first cross exhibit.
COW/LAND TRUSTS
A way to provide lifetime protection by Madhava Gosh

ISCOWP, Balabhadra das & Chaya Dasi - USA) wrote:
"You say we must have a goshalla trust, that is our real purpose: krsi-go-raksya vanijyam, vaisya-karma svabhava-jam (Bhagavad-gita 18.44). Where there is agriculture there must be cows. That is our mission: Cow protection and agriculture and if there is excess, trade. This is a no-profit scheme. For the agriculture we want to produce our own food and we want to keep cows for our own milk. The whole idea is that we are ISKCON, a community to be independent from outside help. This farm project is especially for the devotees to grow their own food. Cotton also, to make their own clothes. And keeping cows for milk and fatty products. Our mission is to protect our devotees from unnecessary heavy work to save time for advancing in Krsna consciousness. This is our mission. So there is no question of profit, but if easily there are surplus products, then we can think of trading. Otherwise we have no such intention. We want a temple, a goshalla and agriculture. A community project as in Europe and America. We are making similar attempts in India in several places. Immediately I'm going to Hyderabad to organize the farm project there. We have six hundred acres. We have the permission from the government. There is no question of ceiling."
(SPL to Yasomatinandana dasa, 28th November, 1976)

Madhava Gosh wrote:
Following is some notes on the cow trust as I see it. Of course, any one could set up a trust any way they want. This is meant to be a prototype. Individual donors may set up trusts with restricted gifts for very focused and specific purposes, such as building a barn or for the lifetime maintenance of a specific cow.

With the stock market (at present) as high as it is, there are some excellent opportunities for large donors to give and get substantial tax breaks for their retirement and estate planning. Recently a donor gave a local college a $4 million dollar donation. The donation was an unrestricted gift placed in a Charitable Remainder Trust. A CRT is one where the donor gets the tax benefits of a charitable donation at the time the gift is placed in the trust (like getting the write-off of the appreciated value of stocks or property, but with no capital gains exposure) and it is not subject to estate taxes, but the donee doesn't take possession of the gift until after the demise of the donor. In the meantime, the donor gets the income generated by the gift to live on. Of course, the specifics will vary from country to country.

In New Vrndavana, I am making a specific request for a particular 280 acre parcel of land to be held for the sole purpose of the cows. This is less than 10% of the land that Bhaktipada left to the NV managers. I don't want to go out to wealthy donors as a poor man with hat in hand. I want to approach from the basis that here is an ongoing, already funded trust with great possibilities and a secure future.
This land is an integral part of the viewshed for pilgrims approaching NV, and is land Srila Prabhupada physically touched with his feet. The land will also be used as a Srila Prabhupada memorial site, with little bhajan kutirs (spelling?) set up in the wooded portions of the pasture for retreats for devotees to spend time with the cows. A gazebo would be built on the site of the 1972 Janamastami celebration where SP spoke the Bhagavat Dharma. Efforts would be made to restore the temple where Srila Prabhupada actually saw Sri Sri Radha Vrindaban Chandra.

PURPOSES OF TRUST:

Guarantee lifetime support for specific cows Promote system of lifetime protection with natural death (no slaughtering) for cows. Promote small scale agriculture. Distribute information and educational materials appropriate to these ends.

ACTIVITIES OF TRUST

1) Hold land in trust for the specific use of the cows. Buy and sell land or income producing properties.
2) Buy land and place development rights in Conservation Trusts, then resell to aspiring cow protectors.
3) Make capital improvements on existing lands
4) Assist people aspiring to protect cows, including making capital improvements to their land for the purpose of facilitating cow protection. Said capital improvements to be secured by a lien on the land, with no payments due as long as protected cows are kept there, or until the land is sold.  
5) Subsidize production of cruelty-free milk.
6) Pay devotees with generated revenues to care for unproductive cows.

FUNDING FOR THE TRUST

1) Existing farm projects place land into trust.
2) City temples pay true cost of protected milk
3) Hindu guests approached for seed money; eventual interaction with Westerners, especially animal rightists and environmentalists.
4) Fund trust initially with donations; over time fund with agricultural production
5) Buy income-producing properties to generate funds for trust
6) Buy revenue producing financial instruments.
7) Assist well-wishers with retirement and estate planning.

Learning to be a teamster can begin at an early age. In the New England states of the USA, youngsters as young as 10 and 12 years old are working with oxen by the use of voice commands.

EXAMPLE OF SUBSIDIZING PROTECTED MILK PRODUCTION

Initially, blood milk is purchased by temples, but $8 for every gallon purchased goes to a farm trust fund, followed by breeding a cow every time another $10,000 is in farm trust. The proceeds maintain the calf for life. When the issue of that breeding has lived a full, natural life and passes on, another cow may be bred. In one year, the 8% return on the $10,000 in farm’s Trust would provide $800, the approximate yearly maintenance cost for one cow. A portion of this $800 would help pay land costs and labor for the devotee caring for the cow.

If a temple uses 3 gallons of milk per day, that is $30 x 365 days =$10,950 per year. If temple has $136,875 in a capital fund, the interest money at 8% would purchase required milk for that temple in perpetuity @ $10 per gallon, with $8 out of the $10 going into trust fund on a farm aspiring to produce the temple’s milk. In 417 days, the $10,000 figure is reached.

Once the temple is purchasing actual protected milk, the $2 per gallon could be used for the devotee milking the cow for personal expenses. As the farm’s trust fund becomes larger, more cows could be bred, making more milk available for sale to congregational members of the temple, including life members, grhastras (families), and also to vegans and animal rightists in the larger community. This would not have to be sold at the full price of $10 per gallon, but would command a premium, which the temple could use to fund it’s trust fund, if it was not already fully funded and the $10@gallon was coming out of cash flow.

Initial funding for the city temple’s trust fund could come from a capital gifts funding drive among life members and congregational members. Large gifts may be more available than you think for such a project. Even less materially well off people could contribute. If the temple sets a high example of purifying blood milk, people will be inspired to follow the example.

If a family used 2 gallons of milk and donated $1 per gallon to the temple trust fund, it would take 130 families 10 years to fund the temple fund of $136,875. Considering it is 20+ years since SP said establish VA, this is not a long time.

This example will tie the city temples to the land, and help bring about the full manifestation of Varnashram Dharma (Vedic society structure). The brahmans (priests) will be known by their example of not drinking unpurified blood milk, the ksatryias (managers) will be known by their competency in administering trust assets, and the vaisyas (farmers) will get access to necessary capital for developing the economic base of VA. When the economic base is established, lots of work for sudras (working class).
The following information can be found on http://web.css.orst.edu/Topics/Pastures/Fertilization/Manure.html.

It was prepared by forage specialist David B. Hannaway at Oregon State University’s Forage Information System.

**Dairy Manure as a Fertilizer Source**

Most dairies need no commercial fertilizer if they use manure properly. In most cases, manure can supply all the nitrogen, phosphorus, potassium, and several other nutrients needed for forage production.

More than half the nutrients in dairy rations are excreted in manure. The key to managing manure is to treat it as a resource by recycling these nutrients to produce forage. For example, one lactating dairy cow's manure can supply enough nitrogen for 1.5 acres of silage corn.

Nutrient flow through a dairy

Nutrients enter your farm in feed and fertilizer. Cows remove nutrients from feed for metabolism and milk production. Some nutrients leave the farm in milk, but most are excreted in manure and remain on the farm. Manure applications return nutrients to the soil, where they can be reused to produce more feed.

Figure 1 shows a cow's daily feed intake and where the nutrients end up. Note that more than half the nutrients in feed are excreted in manure:

Each year, a 1,400-pound lactating cow producing 70 pounds of milk per day excretes the following nutrients in manure: 1.300 pounds of nitrogen, 2.45 pounds of phosphorus, and 3.165 pounds of potassium.

Contrast these amounts to the smaller quantities of nutrients that leave the farm each year in milk: 1.100 pounds of nitrogen 2.20 pounds of phosphorus 3.30 pounds of potassium.

Only 15 to 25 percent of the nutrients in feed end up in milk. The majority remain in manure, a valuable fertilizer resource for forage production.

**Distribution of nutrients**

Not all nutrients are divided evenly between the feces and urine. Most of the phosphorus is found in the feces, while most of the potassium is excreted between feces and urine.
**Dairy manure nutrient content**

The approximate nutrient composition of manure in four common handling systems is shown in Table 1. Use Table 1 to estimate nutrient amounts remaining for crop use.

For example, 1 acre-inch of typical storage pond effluent provides more than twice the nitrogen needed for one cutting of grass forage or more than half the nitrogen needed for a corn silage crop.

Nutrient amounts are expressed in the same way as a fertilizer analysis:
1. Total nitrogen (N), 2. Phosphorus (P) as P2O5, 3. Potassium (K) as K2O

The second column in Table 1 indicates the amount of ammonium N (NH4-N). Ammonium N is readily available to plants. Most of the nitrogen found in storage ponds is in the form of ammonium nitrogen, and therefore is available to crops.

In contrast, nitrogen in other forms is only slowly available to plants. This is why only half the nitrogen from separated solids is available to plants during the growing season.

Potassium from any of the sources is readily available to plants. Most of the phosphorus is available the season manure is applied.

Sample and analyze manure from your dairy. Nutrient content varies widely from farm to farm.

Increase farm profits and reduce risk of environmental damage.

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For more information

The following publications can be ordered from:
Mike Gangwer, Marion County Office, OSU Extension Service
3180 Center St. NE, Room 160
Salem, OR 97301

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**Table 1 Nutrient composition of dairy manure**

<table>
<thead>
<tr>
<th>Manure Type</th>
<th>Total N Nitrogen</th>
<th>Ammonium Nitrogen</th>
<th>Total P2O5 Phosphorus</th>
<th>Total K2O Potassium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry Stack (lb/ton wet manure)</td>
<td>10</td>
<td>3</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td>Separated solids (lb/ton wet solids)</td>
<td>5</td>
<td>NA</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Reception tank (lb/1,000 gallons)</td>
<td>20</td>
<td>8</td>
<td>7</td>
<td>18</td>
</tr>
<tr>
<td>Storage pond (lb/acre-inch)</td>
<td>135</td>
<td>109</td>
<td>30</td>
<td>135</td>
</tr>
</tbody>
</table>

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**Value of manure**

Nitrogen generally is the limiting nutrient to plant growth and the most expensive to purchase. Nitrogen in commercial fertilizer costs approximately 30 cents per pound and $5 per acre to apply. Phosphorus costs 20 cents per pound, and potassium costs 15 cents per pound.

If losses and incomplete availability are taken into account, the annual value of nutrients in manure from 100 lactating cows exceeds $10,000.

Proper management of manure can in-
Breeding

From letters and e-mail correspondence

We feel that misunderstanding of breeding topics is very much at the foundation of cow neglect, abuse, and malnutrition. We have therefore printed the following contributions on different aspects of breeding.

Madhava Gosh das
(New Vrndavana, USA):

Cow Numbers

Every cow that is bred during a year, means you will have 10 cows in your herd after ten years (obviously just a rule of thumb, but we need some guidelines). If you breed 5 cows in a year, you will be carrying 50 cows in your herd when the numbers stabilize. If you are starting new, the numbers will rise. If you are starting with 100 animals already, the number would diminish, but allow about ten years for the number to stabilize.

If the carrying capacity of the land is 6 acres per cow, than breeding 5 cows a year would mean you would need 5 (calves) x 10 (average life expectancy) x 6 (carrying capacity of the land) = 300 acres to handle them.

Carrying Capacity of the Land

One thing that varies greatly in particular time and circumstances is the carrying capacity of the land. Srila Prabhupada states that one cow on one acre works. I am sure that that is true in a tropical area with good rainfall and fertile, well maintained soils, but it takes more in West Virginia. We have to grow forage and store it for the winter, and much of the land is too steep to be used even for grazing. 10 acres for each cow is a more realistic ratio here. Even that changes if you happen to have all bottom land, in which case it takes much less, but you do have to look at the specific area which is best determined by asking local generational farmers. Potential carrying capacity of the land may be dramatically reduced by lack of soil maintenance. In NV, the soils are naturally acidic. If lime is not applied, the carrying capacity is reduced. Overgrazed land will produce less than land that is rotated.

Breed Selection

Breed selection is a very important consideration. A modern Holstein cow will produce a large amount of milk given large inputs of high energy and protein feeds, but production falls off dramatically after a year. A Jersey cow will produce less, but will do it on lower quality feed over a longer period of time. We have experience in NV of a Jersey cow producing over 4 liters of milk a day even after 5 years, all from just one calf.

Cows bred for modern dairy operations are not the best for cow protection programs. Choice of breeds is highly subjective and can be emotional at times, but I would say that everybody should avoid Holsteins. Get cows traditional used by homesteaders in the local area. You may have to go to the old-timers, as the local breed may not even be found in the local area. If you already have Holsteins, start crossing in another breed. After a few generations, you can breed away from the Holstein towards the more desirable breed. Select a breed not just based on milk production but on docility, strength, and endurance of the oxen produced.

Calf Mortality Rate

A calf mortality rate of 5% is considered excellent. 10% mortality rate, after one year, is borderline acceptable. If you count the number of cows that are milking and how long they have been milking, then count the calves that were born from these cows, you can interpolate mortality numbers. A rate of mortality exceeding 10% means there needs to be more attention given to that aspect.

The two most important factors are personal attention so small problems are caught before they become big problems, and access to sunshine. In one barn at NV, the calves were in pens with south facing windows. An addition was built on the south side, blocking the sunshine. The mortality rate rose noticeably. In the Brahma Samhita, the sun is considered Krsna's eye. He's watching. The sun has disinfecting qualities.

No Large Dairy

The attempt by Bhakti-pada to finance the cow program by selling milk was a huge disaster, although at first it was quite successful. It works the first few years, because the expanding dairy with lots of milk sales provides an income. But the calves from those freshened cows have to be fed for not just the duration of the period the cow is milked, generally about one year, but for a decade more after that, when the income from the milk is nothing but a memory.

Cow Endowment

I think no cow should be bred unless there is a plan for the maintenance of the calf throughout it's life. This means an endowment, a portion of which could be in the form of unencumbered land with restrictions on sale and/or sale with retention of grazing rights. Land could be bought and then given to, or sold to, a Vaisya (farmer) with the condition that...
the first 10-12 years, the grazing rights would be maintained for the benefit of the calf, or others, should it die prematurely.) The balance of the endowment should be in an irrevocable trust, the proceeds of which would be used for the maintenance.

The problem with depending on cash flow from donors is that all it takes is a scandal in the leadership, and it dries right up. Again, see New Vrindavāna for an example of this.

Cross Breeding
Labangalatika dasi
(Raigad, India)

After a lot of soul searching we have come to the decision to breed out the Jerseys from our herd as they are not suitable for Indian conditions. They are very affectionate and gentle but without a lot of personal care they can not survive here like the other Indian cows and bulls. They need a lot of green fodder and at least 3 times as much dry fodder as the others and water consumption.

It’s almost now that we are here and can take care of their needs, but they cannot go out all day, day after day, in the dry season to forage and stay healthy. In ten years time I am not likely to be able to do much here and so exotic bulls and cows may suffer. So, we have to think of the future. They are much more susceptible to disease. They could not work for local farmers and manage under their care. Of course the cows we have now will always be here their whole life, but I’m thinking it is not fair to go on producing exotic breeds. So we have decided our Jersey bulls will be oxen and we will import a good breed of Indian bull, such as Thapar, to improve the breed of the Indian herd. The Jersey cow’s bull calves will be oxen and not reproduce, and the heifers will be bred again to this bull. Gradually the Jersey strain will be absorbed. We have very few workers and the Jerseys need a lot of care; bathing twice daily and the bulls nearly daily. Our Indian animals never sit in their dung.

The introduction of crossbred animals from the west into India has been very unfortunate. The exotic bull calves born were found useless by farmers for working conditions and so slaughter houses have sprung up as these calves were found to be a source of revenue for exporting beef to Arab countries with the blessings of the politicians.

I don’t want to be a party to producing exotic bulls, at first unintentionally, but now I know. All the one we have will be fully protected here.

Rohita das, New Talavan USA

From: WWW: Rohita (Das) ACBSP
(New Talavan MS - USA)
<talavan@com.org>
To: COM: Cow (Protection and related issues) <Cow@com.bbt.se>
Subject: Cross Breeding
Date: Wednesday, June 10, 1998 8:03 PM

Comment on Labangalatika’s text:

Yes in India it is a well documented fact that European stock does not due well for the above reasons you have mentioned. If you live on the west coast you should also consider the Gyr breed as they are similar in production and body conformation to the Jersey. Here in New Talavan (coastal Mississippi) we have temperatures and humidity similar to Maharashtra (38°C with humidity of near 90% today). We have a predominately Jersey herd with some animals of mixed Jersey and Gyr ancestry. The full blood Gyr and those with more than 1/4 Gyr blood graze during midday and seem to suffer no over-heating like those who have Jersey or other European bloodlines. Those with mixed ancestry possess the grazing ability, heat resistance and temperament of the Gyr but retain the productivity of the Jersey. They manage to do this grazing the same woodier growth that the full Gyr consume … they tend to be larger than either parental line in height.

While in India in ’96 I toured in Northern India spending some time in Maharashtra (Central) and Gujarat (Rajkot) visiting the villagers and talking with them. In both these areas they have returned to the native breeds. In the town of Rajkot the cows out number people 5 to 1 all the cows fill the town square as they prepare to go to pasture at sunrise, all red all Gyr. The Raj owns a large herd which is renowned for the purity of bloodline both in Gujarat and Maharashtra he even exports some to Brazil which has similar climate and conditions.

A word of warning the heifer of the first cross (indicus x tarus) are difficult to milk, they will require a lot of daily care (affection) but the subsequent crosses will prove to be more like their indicus ancestry. If you wish to keep the higher productivity of the Jersey this can be obtained by the following:

1. Selection of high producing indicus bull.
2. Breed to Jersey cow.
3. Breed the heifers of this cross to Jersey bull (high producing).
4. The 3/4 Jersey heifers produced are then bred to indicus bull.
5. This produces 3/8 Jersey blood. These heifers look and act like the full indicus but will produce like the Jersey under Indian conditions.
6. If you can breed to bull of 3/8 Jersey

Continued on page 14
Installing the fencing is an ongoing process. The new 2 acre garden area is now fenced in. Balabhadra was able to rent a hand (motorized) pole digger which has enabled us to get a lot of fencing done. We hired a few local Gurukuli boys to help Balabhadra. We have found that a lot of the fencing is falling apart and we are replacing it. Also, we are moving some of the fence lines to make room for the Ox-Power Herb Company and our long range plans for grazing and development. Not only are fence post being installed but wood poles are being installed between the larger posts to prevent the cows from squeezing their way between the high tensile wire to get to the other side of the fence. The older fencing is barbed wire, but even then the cows still tried to get through. We all know the illusion of thinking it is greener on the other side of the fence.

Ox-power Herb Company

A contractor came (the same one who installed the water tank and excavated the house site) to excavate the area for the Ox-Power Herb Company storage and processing building. Balabhadra cleared the area of garbage, burned the bushes, took down the old shed, and moved the fencing. The whole farm looks a lot better due to the cleaning although we still have more cleaning to do. The contractor said it looked like we did a lot since he came last (about a year ago).

Not only is the area now cleared and filled in, two other areas were cleared. Since now we own the adjoining parcel we moved the fence line between the parcels and cleared a driveway area on the side of the old house. This allows for parking of our work vehicles and equipment, and in general a working area.
Also the entrance to the farm has been widened and will be widened more now that the phone line is in. Installing the phone has been no simple matter. The line had to go underground for about 1 1/2 miles.

Constructing Barn Floor
The major project right now is the barn floor. Last year we used large bales of hay that had to be moved by a tractor. This wasn’t such a good system since the tractor tore up the land and we don’t want to be dependent on the machine which we borrowed from the New Vrndavana barn when we needed it. This year we want to store all the hay in the barn. We will be purchasing small square bales which can be lifted by anyone and put into the barn feeding trough.

The floor is a little more than half done. Now is the time that the hay is cut and the farmers charge $.25 cents more if they have to store it in their barn instead of the customer taking it out of the field. So, Balabhadra wants to get the barn floor done, so he doesn’t have to continue to pay the higher price. Eventually we can grow our own. However, we will always need the barn to store it in.

ISCOWP’s Basement Home
All the dry wall and mudying has been done in the basement which is the support for our straw-bale home. The kitchen cabinets and bathroom cabinets are in and painting will soon proceed. Then, when the painting is done, the doors and light fixtures have to be installed. Some cleaning and then we will move in. It seems September will be the month this can happen.

By the next newsletter we will have moved to Vrajapura Farm. We hope to save gas costs, travel time, and in general be able to focus more on the project since we will be living on the property.

Minimum Cow Protection Standards
The Minimum Cow Protection Standards printed in the Summer/Fall 1997 ISCOWP News issue are in the process of revision with more cowherdsmen and others becoming part in their formulation. Most of the work is being done on the COM Cow conference. We as organizers of the conference can make you a member. So, drop us an e-mail at IS-COWP@ovnet.com if you want to become a member.

These standards will not only be for ISKCON cow care but we hope for all lifetime cow protection facilities which need guidelines. Hence, cow abuse in such facilities will be minimized. The revised standards will be printed again in a later issue of this newsletter for further discussion and completion. We will be looking forward to your input.

Bottom far left-Shed and debris at site of Ox-power Herb Company.

Bottom left- Bulldozer removing earth from beside old house to make a driveway and moving it to the company site to make a level earthen floor.

Top-Cleared and leveled site for the Ox-power Herb Company. We are now letting the earth settle before putting in the cement floor.

Top right-Balabhadra and Mela utilizing the barn floor which is supported by pillars of cement mixed by hand and poured into cardboard tubes. These tubes were placed into 2 foot deep holes dug by hand.

Bottom Right- The floor will be two levels. Half of it is done.

New Web Page
As some of you know we have a one page WEB page on the Internet. We have been long aware of the great potential in having an attractive Web page, updated, and linked to related sites. Recently a young Hindu gentleman living in Malaysia is creating such a site in cooperation with Chayadevi. She is e-mailing him photos and information and it looks like a very attractive site will be soon be available. We are looking forward to the vast preaching opportunities such a site will offer.
Breeding
Continued from page 11

blood. Always select the best producers under your conditions.

It is always best that the breed used is suited to the environment, otherwise the actual life span will be shortened.

Dvibhuja das, New Talavan USA
From: WWW: Dvibhuja (Dasa) ACBSP
(New Talavan MS - USA)
<dvibhuja@com.org>
To: <ISCOWP@com.bbt.se>
Subject: Cross Breeding
Date: Sunday, July 05, 1998 3:19 AM

There should be a strong understanding that the worst mistake we ever made in our history of cow protection at New Talavan was to cross our cows whether they are jersey, brown swiss or guernsey with Indian bulls. These are referred to as gyr or Brahman bulls. They are fine if you want to raise race horses and indeed might make a superior oxen, but for milking they are atrocious.

They can kick in ways you never imagined. I have milked hundreds or more cows and thought I could milk any cow with a bag, but I met my match with these crossbreeds. They could make Muhammed Ali duck for cover. Their jabs are unreal and they are so intelligent that you can try every trick in the book and still they will revert to whatever they originally decided was their stand, sort of like muslim extremists. No matter what you say they will stand by their decision to be non-cooperative.

They could make an excellent ox, but they can really run and jump like race horses. However if trained as an ox should be from early age they are quite useful. However they will be very tall and fences usually pose no problem for them. They come and go as they please. I truly beleive that I cannot strongly enough caution anyone against using the indian bulls for crossbreeding unless you want to kick yourself in the behind later

or worse have one of them kick you in your behind.

Laxmi Narain Modi’s & Down to Earth Publication’s Opinion: (Delhi, India)
Cross Breeding

In a letter to a Indian government official Laxmi Narain Modi (Trustee of the Bharitya Cattle Association) wrote the following.

We have been presenting the various problems caused due to extensive exotic breeding resulting in loss of our pure line of Bharitya breeds, but of no avail; even though loss of one breed means a loss of over $100 billion. Now your attention is drawn to cover story in Down to Earth publication of September 15, 1997. A few excerpts are quoted below.

1) Ignorance is bliss indeed, but only where it is a folly to be wise. In the Indian context, when it comes to crossbreeding programs, those in charge cannot afford to even pretend to be ignorant of the fallout of these programs.

2) Cross breeding, specifically that of cattle was done in India in an attempt to increase milk yields, and in the case of poultry, to increase bird size and decrease maturity time. To a certain extent the programs were successful.

3) Than things began to go wrong. Farmers resorted to their own home breeding programs. Bulls of exotic breeds were introduced to the local cows so that the offspring would yield more milk and as a result earn more money for the farmer. But the farmers were in for a shock.

4) The new generation of half breeds were a surly dissatisfied lot. They ate more and demanded more in terms of fundamental conveniences than their less fortunate native counterparts.

5) It was true that crossbred cows produced more milk but they also needed more trips to the local vet as they were less resistant to the disease prevailing in the country.

6) They were also more likely to stop producing more milk if not given a better diet, better in quality and more in quantity.

7) Unfortunately by now the natives had been rounded up and herded into small isolated corners of the country.

8) By now realization is beginning to set in amongst farmers and dairy owners that crossbreeds may produce more but these high outputs are subject to high inputs, which the Indian farmer can ill afford.

9) The scientific bureaucracy would also be well advised to come up with indigenous livestock improvement programs where local breeds could be identified and breeding of these pursued for increase milk yields.

10) Superior livestock is being imported by Australia and some countries in Africa to improve the cattle stock.

11) What is surprising, however, is that the seed for this stock comes from Indian breeds like the Sahiwal Cow.

12) While Australians are pursuing a program to make the cattle hardier and help their livestock adapt to a hotter climate, in India it seems we are doing exactly the reverse.

“Lalita had a calf in August, a bull, named Gopal. Immediately I noticed the difference in strength and vigor of a calf conceived naturally instead of by artificial insemination. He is a very
13) Will we have to import from another nation, what was once part of our heritage, after having destroyed it at home?

Artificial Insemination
Labangalatika dasi

You say in the standards of cow protection that we should not keep bulls, but use artificial insemination. Srila Prabhupada says clearly (in a letter in Siksamrta) that artificial insemination is not to be done and is not at all good. So, we should not do this.

Also, low vitality is general among artificially conceived animals (from Juliette Levy’s “Herbal Handbook for the Farm and Stable” - in a previous newsletter you got her name wrong). A very high percentage of cases of retention of after birth is among cows impregnated by artificial insemination. She says the female’s emotional condition at time of conception influences the vigor of the embryo and lack of it has a negative effect in the uterus. The whole reproductive system is adversely affected as the uterus and glands have not been properly stimulated or the nervous system aroused. So, the uterus doesn’t function properly and she can’t expel the afterbirth. We would not want to produce animals of less vitality. Should we not have our own bulls and carefully trained cowherds? It is a big responsibility, but devotees are here to show how to properly handle a bull nicely.

Revised Standards on Impregnating Cows

Due to input from Syamasundara (Bhaktivedanta Manor, England), Rohita (New Talavan, Mississippi), Madhava Gosh (New Vrndavana), ISCOWP, and Labangalatika, the recommended standards on this topic have been revised to read:

(6) Impregnation of Cows

Recommended Methods
1. Cows should be impregnated by using bulls as requested by Srila Prabhupada. Such bulls must be properly enclosed to ensure proper safety and to avoid unscheduled pregnancies.
2. Careful records of breeding must be kept in order to avoid inbreeding.
3. As it is difficult to keep a bull, use of a community bull or neighbor’s bulls is recommended.

Premitted Method
1. Artificial Insemination may be used when in special circumstances bulls can not be properly maintained. Bulls from a neighbor (even though not farmed according to Vaisnava principles) may also be used if they are suitable.
2. Inbreeding may be practiced only under strict conditions by persons who can show sufficient knowledge of this practice.

Prohibited Methods
Keeping bulls that are not properly enclosed in bull proof fences and stockades. Such bulls will invariably lead to unscheduled breeding. Keeping a bull must follow the same standards given herein for the cows. In addition a bull should have association (at least one ox with him) and should not be kept within close proximity to those cows you do not wish to breed.

LETTERS
continued from page 5

Weaning a calf from its Mother

it to such a large degree that they are almost impossible to milk. Additional crosses tend to be more like the dominant strain in their mentality. Each has its advantages and disadvantages and one can see they show some relation to the culture in which they are found. The system of cattle rearing in India fostered that type of behavior, in the west the focus was on calves being taken away when young.

In my experience the western cows are easier to work with in this regard, as you can make almost any kind of arrangement and the cow and calf will accept after a short period of adjustment.

Goshalla

WWW: Rohita (Dasa) ACBSP (New Talavan MS - USA) <talavan@com.org>
To: COM: Cow (Protection and related issues) <Cow@com.bbt.se>
Subject: Goshalla definition
Date: Saturday, June 27, 1998 11:37 AM

To the best of my understanding: go = cows (a general term) and shalla = a room. Literally a room for cows or to accommodate cows. In India there appears to be a variety of definitions for the term goshalla. A little tour of West India.

1. In Gujarat the term usually refers to cows who are no longer milking, non-working oxen and the infirm. Bulls, working oxen and milking cows and their young calves belong to individual homes that are collectively grazed. This is in the land where cows outnumber the people as much as 5 to 1.
2. The Gujarat goshallas are usually sponsored by some Maharaja or a group of businessmen.
3. In Gujarat the Maharajas also maintain higher quality cows that make up the dairies (connected to Ma Kali temples) these have a resident vet and are run on western standards. They breed stock for export to South America and sell some to the US. On the peninsula and down the coast toward Bombay these herds are pure Gyr. These are also called goshallas.
4. On the west side of the Rann of Kutch the people are more nomadic and there is established farms in the more fertile areas. These farms are independent operations, hand milking as opposed to the more communal atmosphere of the south. These are usually very large extended families. The animals here are the Kankrej (in the US they are called Gujarat, the same animals you see pulling the ISKCON Indian Padayatra rathas). These farms are not usually called goshallas.
5. In central Maharasthra (Puna) the breed is the Kilnar. You can see these animals pulling the children's ratha used in the Bombay Rathayatra. A village is very small like a large extended family, each individual family has animals and the headman is in charge of the bull. The children collect all the cows from their individual owners and take them to graze. Everything is done communally. Most of the forage is fed by the private home, grazing just seems to be a means to occupy the cows and children. The main function is the oxen as draft animal, the cows give very little milk. By breeding and training the Kilnar start everything at a run and are not very docile. Any animal that does not run at the beginning of pulling is considered of low quality and is soon replaced. These are not called goshallas.
Rye and rice fields prepared by ox-power. Want to learn how? see page 2

THE ISCOWP NEWS

The International Society for Cow Protection
Rd 1 NBU #28
Moundsville, W.V. 26041, U.S.A.
Tel # 304-843-1270

FORWARD AND ADDRESS CORRECTION

Saved From the Slaughterhouse