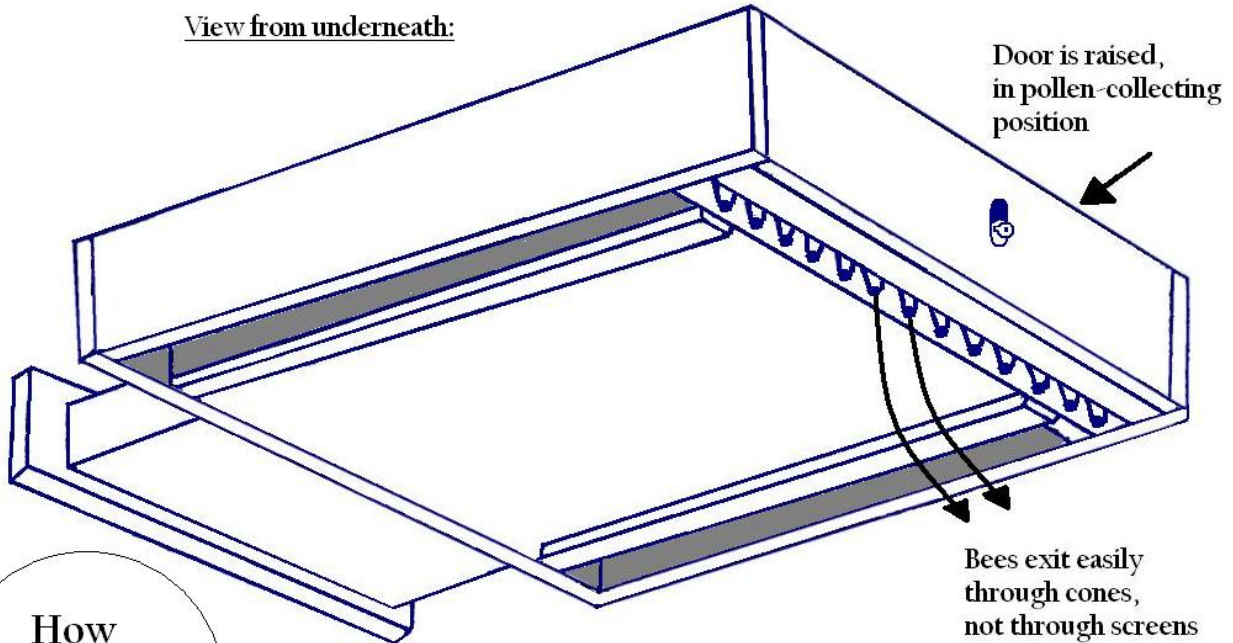




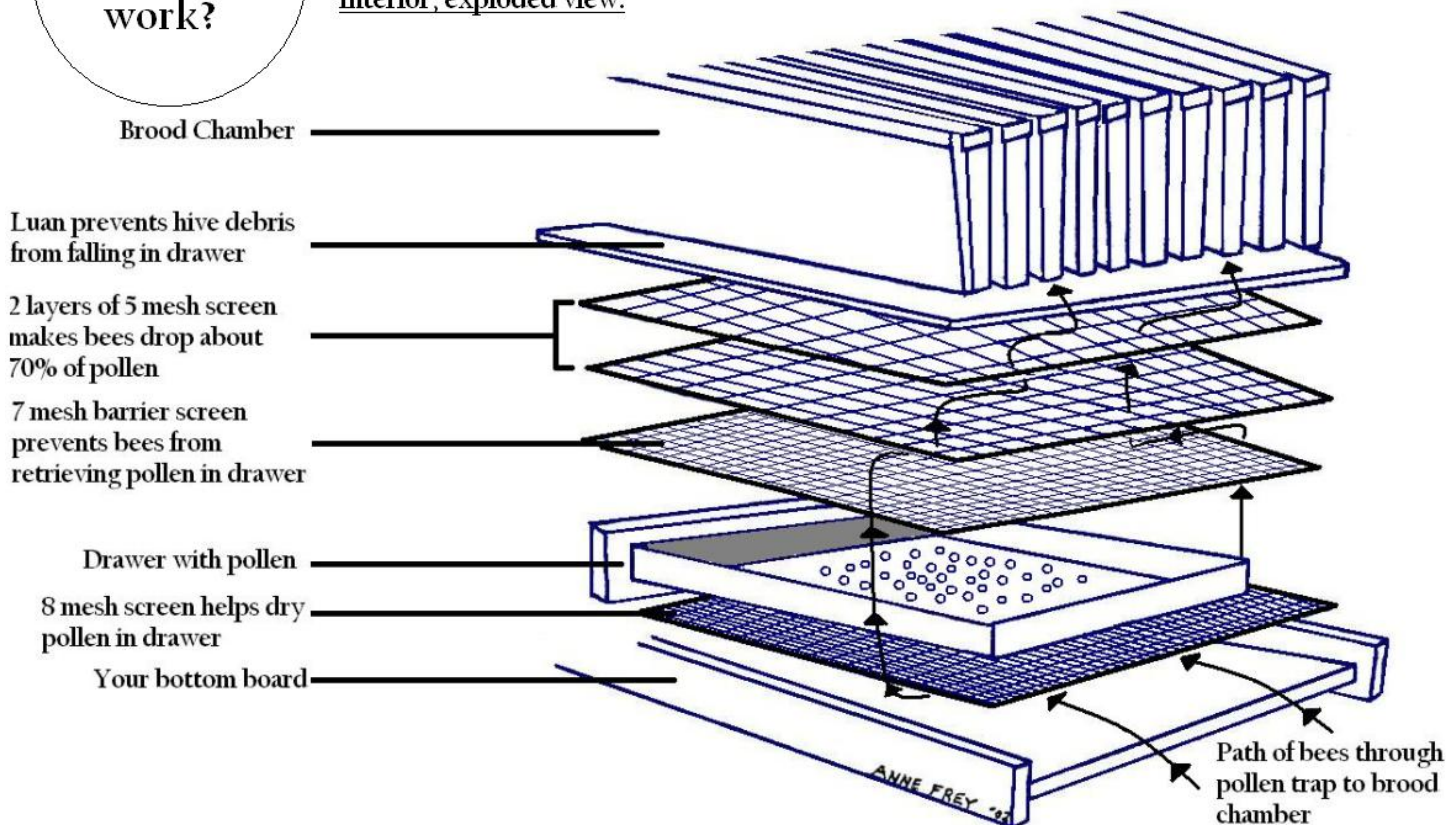
SUNDANCE™ POLLEN TRAP

View from underneath:



How does it work?

Interior, exploded view:





Assembly & Use Instructions

Congratulations, you have purchased the finest pollen trap in the world, to minimize shipping damage, we do not fully complete assembly, but this will require less than five minutes of your time.

Inside the collection drawer is an envelope. Open, and remove the eyebolt and washer. Place the washer on the eyebolt.

Place the pollen trap on a flat surface such as a table or the floor. Turn so that the drawer is opposite you. Facing you should be a loose board with a slot. If the board is separate, put it in place so that it is flat against the trap and in between the sides.

Look through the slot and you will see a hole in the lower quarter of the slot's length. The inside of the hole is threaded to accept the eyebolt. With the washer on the outside, thread the eyebolt into the hole until it holds the board firmly in place. Do not over tighten. Assembly is complete!

To use the pollen trap, place it on top of the rails of a bottom board so that eyebolt is facing you. Be certain that the top of the front board (with the slot containing the eyebolt) is flush with the top of the sides of the pollen trap and that there is an entrance below the front board and above the bottom board. This is where the bees will enter with their pollen load.

Loosen the eyebolt one full turn, and try to slide the front board down so that it is sitting on the bottom board. The front board is sized to fit snugly in between the rails of the bottom boards with standard 14 3/4" clearances. If the clearance of your bottom board is less, carefully cut a notch on both sides of the front board. Do not cut the entire width of the front board, as doing so will provide a bee entrance where the bees can avoid the stripper screens. If the board does not easily slide up and down, remove any debris between the front board and the sides and in the slot. If it still does not slide freely, lubricate with some bar soap or beeswax.

When you want to stop collecting pollen, loosen the eyebolt one full turn and slide the front board down to completely close off the entrance above the bottom board. This creates a new entrance above the pollen trap that the bees will fully discover in a couple of hours. When bees use this entrance, pollen is not collected.

Please see our separate Guide to Collecting Pollen for hints on maximizing your pollen collection and hive income.



Please contact your dealer or us if you have any difficulty assembling your Sundance pollen trap. We completely guarantee our workmanship. If, at any time, you are dissatisfied please contact us or your dealer for a full refund of replacement.

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Guide to Collecting Pollen

Collecting pollen is fun, should not interfere with honey production or weaken the hive, and can substantially increase your income from beekeeping.

In temperate climates, such as we enjoy in most of the United States, most pollen is produced in the spring when trees such as willow and maple and flowers such as dandelion yield tremendous quantities. In many parts of the United States, there is also a substantial fall flow from goldenrod and other late flowering plants. Many beekeepers collect pollen for just 4-6 weeks in the spring and again for a similar time in the fall. This may be sufficient for those beekeepers that want relatively small quantities for their personal use and to furnish to friends, or who collect pollen to feed to their bees for fast build up or to produce queens. Other beekeepers recognize the premium prices paid for pollen and many collect hundreds of pounds a year to sell to others for human or animal consumption.

The devices for collecting pollen have long been called a "trap". Where the use of the term came from is unclear. The devices certainly do not somehow collect pollen as it is running around loose, as might be implied by the use of the term "trap". The devices might be more accurately called "collectors", as that is what they do. All the devices collect pollen by scraping it off the legs of the incoming worker bees. Regardless of accuracy, we are stuck with the term "trap", and I will use it hereafter.

The Sundance pollen traps are ideally designed for both the casual and more serious pollen collector. Their overall durability and design make them ideal for all levels of beekeepers.

There are separate instructions for use of each Sundance Trap. (We make a Bottom Mount (Sundance I), a Top Mount (Sundance II). Both of these have pollen collecting drawers that open to the rear. We also make both Bottom Mount and Top Mount traps with a side opening drawer (Sundance III) for beekeepers who keep four hives



on a pallet or have other restrictions that make a rear opening drawer impractical. Instructions are provided with the initial purchase of each trap and they can be found on our website, www.RossRounds.com. The following apply to pollen collected in Sundance Traps.

Start checking your drawers for pollen on a daily basis. Take along a plastic bag and dump pollen from the drawer into the bag. Replace the drawer. As you will be working in the back of the hives, it is not normally necessary to wear protective gear, including a veil. It usually takes about three days after the pollen trap is installed before the bees accept the new entrance. During these three days, do not despair because of the bees' confusion and reluctance to go through the trap. The generally start good acceptance in about three days, and at the end of two weeks have fully accepted the trap and willingly pass through to get to the brood nest.

At the end of the two week initial period, you should start collecting at least 4-6 ounces, from every hive. Moreover, collecting one to two pounds a day is not uncommon. If you are collecting less than 4-6 ounces and there are a good number of bees entering and leaving the hive, check to be certain some bees are not entering the hive through a crack that lets them bypass the trap.

As you collect pollen from the drawers, pour into a paper or plastic bag. As soon as you get home, pour the pollen from the collecting bag into a larger bag or other container in the freezer. Keep the container open while in the freezer, do not cover. Freezing protects the pollen from mould and kills any wax moth eggs. (If you are not using a Sundance trap, your pollen also contains live Varroa mites, and freezing also kills them.) If you use a frost-free freezer, the freezing process will also reduce the moisture content in the pollen, using the same physics as those that produce freezer burn on meat.

If you have pollen traps on more than one hive, you may notice that some hives collect significantly less pollen. You may also notice that a hive that has been collecting significant amounts of pollen suddenly is collecting less than neighbouring hives. Either circumstances a sign that something is wrong with the hive. It may have over-wintered poorly, may have lost its queens, might have a heavy infection of Varroa, etc. Carefully inspect such hives and take corrective measures.

Whenever possible, empty the trap daily. However, the extensive screening on the top and bottom of the Sundance Traps maximize ventilation so if you cannot get to the trap every day, the pollen will be unlikely to mould. In 1999, when our summer was much more hot and humid than normal, I had to travel for two weeks so I set my traps for free flight before I left. A few days after returning I found that I have



failed to completely close one of the traps and the drawer contained almost three pounds of pollen, with no signs of mould!

If you live in an area where corn is grown, I strongly suggest that you set your traps so they will not collect pollen while the tassels are releasing pollen. Corn pollen is said to be of poor nutrition, and bees do not normally collect it. However, in some areas of the country little other pollen is available at the time corn is "blooming". In such circumstances bees will collect corn pollen. Corn pollen is so fine it can actually seal the mesh on the bottom of the collection drawer, making a mess. If possible, avoid collecting it.

How pollen is processed after freezing depends on its next use and customer preferences. Many beekeepers realize the enormous benefits of feeding pollen to over-wintered bees, nucs, and hives used for producing queen cells. Pollen use in this manner does not need cleaning. Mix with 1:1 sugar water or corn syrup until it is the consistency of dough. Form into patties the thickness of pizza, and re-freeze or use immediately. Over-wintered hives can profitably use pollen patties 4-6 weeks before red maple bloom in the area, regardless of temperature. Such hives will have enormous spring populations and can be used for extra splits. When feeding pollen patties, put the patties on top of a layer of wax paper and put the wax paper on top of the frames.

Some beekeepers believe that pollen collected from the bottom-mount traps (such as Sundance I) should not be fed to bees as it may contain some Chalkbrood mummies or foulbrood spores. Pollen collected from the top-mount traps is free of such contamination.

Thousands of pounds of pollen are sold for feeding animals ranging from thoroughbred horses to laboratory mice. This pollen also does not need cleaning, but may need drying. Pollen sold for human consumption does need cleaning and may need drying.

Some large collectors of pollen accomplish some of their pollen drying while it is frozen; this technique can be used at home if a frost-free freezer is available. Virtually everything that can freeze contains some amount of moisture. As very cold air is also very dry, the moisture in the frozen material wants to migrate into the air. Losing moisture in this manner is what causes "freezer burn". Some commercial collectors of pollen leave their bags open while in the freezer and when they daily add pollen; they also stir the pollen inside the bags. This causes moisture to migrate from the pollen, therefore reducing the moisture content. The effectiveness of this method depends on the length of time the pollen can be left in the freezer and the



amount of pollen that is exposed to the air inside the freezer. A walk-in frost-free freezer with shelves for pollen storage is ideal, but small amounts can be dried in any home freezer that is front-free.

Others who collect large amounts of pollen spread it onto 30" x 60" window screens so that it is about 1" deep, and then leave it in a room with good air movement. When sufficiently dry, pollen gently pressed between the thumb and forefinger will stay in a loose ball rather than disintegrate. During the summer, with 50%-60% relative humidity, such pollen will dry in 48 hours. During the winter, in a room heated with hot air, such pollen will dry in about 8 hours.

It is very important to not over-dry pollen as it then tastes like sand. Do not dry Pollen:

1. Out of doors with no rain protection
2. In an attic
3. In an oven
4. In a food dryer
5. In a greenhouse

Attempting to dry pollen out of doors invites disaster as if it becomes wet from an unexpected downpour it will turn to mush and cannot be recovered. Attempting to dry pollen in an attic, oven, food dryer, or greenhouse invites disaster as it is likely to quickly dry so fast that it will taste like sand.

Many buyers of pollen for human consumption will accept it unclean for about \$1.00 less a pound than cleaned pollen. In recent years, cleaned pollen has been selling at wholesale for around \$4.50 a pound. I am not aware of any manufacturer of pollen cleaning equipment, but seed cleaning equipment works fine. Unfortunately, it is difficult to locate small size seed cleaning equipment.

To clean pollen (or seeds) it is necessary to eliminate the stray chaff that accumulates. Fortunately, the Sundance trap accumulates very little debris. If the pollen is introduced into a gentle air stream, the pollen will quickly fall and the chaff will blow a distance away. One beekeeper built a cabinet with a floor and two sides but no top. Dimensions were about size feet long, two feet wide and two feet high. Inside he put an electric fan and baffles fastened to the floor. The baffles were about one foot high and were spaced every foot.



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With practice, he could pour pollen into the air stream from the fan so that all the pollen would land between the first couple of baffles, but the chaff, being lighter, would blow further and settle into the end baffles.

It is also possible to make or buy a pollen cleaner made from a furnace hot air blower. If you are trying to clean more than 100 pounds a year, the cost/benefit relationship may be favourable. Contact us for more information.

You have purchased the finest pollen trap in the world. With a little care over each winter, it will last for many years and we hope it gives you much joy.

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