Example Stripping Room Layouts

With the emerging adoption of 'Big Bales' for burley tobacco, producers need more stripping room space to accommodate the stripping and big baling process. Some conventional stripping rooms can be used with the big baling done external to the stripping room. However, additional space in the form of converted buildings (shops, sheds, etc.) or building new space for efficient use of the big bales is being considered by many producers.

This report provides numerous examples of stripping room layouts with maximum labor efficiency and minimum product handling as primary considerations. Initial layouts (SRL#C1 - C6) illustrate how a conventional stripping room attached to the side of a barn might be adapted to still strip the tobacco in the conventional stripping room but do the baling in the barn driveway. This process would require additional labor for carrying the stripped leaves to the baler in burlap sheets, cardboard or plastic containers, or other handling devices. These options are not the most labor efficient but may offer improvements for producers wanting to migrate to a big baler operation and keep additional costs to a minimum.

Layouts SRL#B1 - B7 illustrate how a separate building can be converted or new space built and utilized for big bale operations using one-worker size cardboard or plastic containers for stripping and handling the tobacco to the baler, including temporary storage of various grades until sufficient quantity of tobacco has been stripped for a big bale. Cardboard boxes have not been durable enough for prolonged use. Plastic containers of about 30-gallon size and costing approximately $4 each (damaged/salvaged) up to $8 each (new) are one option for good stripping and handling as shown in a video of the U. Ky. Woodford Co. Research Farm stripping operation (Mr. Mike Peters, Farm Manager) on the BAE Extension Tobacco web site (www.bae.uky.edu/ext/tobacco).

Layouts SRL#S1 - S6 illustrate how a separate building can be converted or new space built and utilized for big bale operations using normal tobacco size and quality burlap sheets for stripping and handling the tobacco to the baler, including temporary storage of various grades until sufficient quantity of tobacco has been stripped for a big bale. The burlap sheets are being used by some producers to strip for a day or more before baling or for transporting a load of tobacco to a big baler location for baling. Each filled sheet can contain about 150-250 pounds of stripped leaves, depending on leaf type and extent of packing into the sheet. Burlap sheets are reported to cost about $6.00 each new in used sheets cannot be found at a lower cost.

Note: plastic sheets or similar woven plastic materials that might shed strands or fragments ARE NOT recommended due to potential foreign matter being lost in the tobacco and objections of same by the buying companies.

In general, approximately a 30 ft by 50 ft building, more or less, is a good size for stripping and baling in the same area. Bale storage would be in an adjacent space or separate building, such as a barn or other suitable storage building. These stand-alone buildings could be attached to a barn but curing ventilation in the barn would be limited due to the size of the building. A separate facility could serve as a good farm shop the remainder of the year, or portions of a large shop could be used for the stripping operations in the fall and early winter. The space where the wagonload of tobacco to be stripped is located could be expanded and sealed to provide a moisture conditioning room which would work best with tobacco still on sticks and hanging on the pipe frame trailers or similar frames or racks. The ceiling height where a big baler is used should be at least 9-10 feet to provide clearance for the baler frame and press head. (Check potential balers for exact heights required.) Space for operating a small forklift is shown in the layouts but larger models and front lifts on a tractor may require more maneuvering space. Whether the forklift operates on concrete, soil and/or gravel surfaces will dictate the type of wheels and maneuverability of the forklift/tractor unit.

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Additional details and explanations about each layout are shown at the bottom of the layout. Construction details, lighting, electrical, heat and other utilities are not shown. A sketch showing general features of an enclosure suitable for tobacco conditioning or stripping room operations is shown at the end of the layouts. Ideas from one or more of the layouts might be incorporated into a layout more suitable to an individual's preferences and farm operation.

Specifications and/or details about the various big balers being commercially made are not included but may be summarized and listed here later in the summer. The electric power requirements for most big balers will be 230 volts, 30 amps, single phase. Some balers can be powered for a portable or tractor's hydraulic system. Be sure the baler controls will match the separate hydraulic pump and pressure capabilities ('open' or 'closed' type hydraulic system, relief valves, filters, etc.) The addition of weighing devices on the bale supports and an electronic display seems to be very useful to get the desired 550-600 pounds of tobacco in a bale.

Mechanical stripping devices are not included in these layout pending more development of some experimental units. However, the space used by the double-wide tables may be adequate space to position future potential devices.

Any suggestions or further ideas are welcomed. Just send to gduncan@uky.edu.
This layout (SRL#C1) shows a typical conventional stripping room attached parallel to a barn with the small bale press boxes. Three grades require four workers; four grades require five workers for efficiency with one worker bringing in tobacco and carrying out stalks & bales with possible help periodically from one of the other workers. Bulked tobacco is in the driveways, either bulked on protective material or wagons/trailers. Bales are stored nearby on protective material. Stalk removal is through a small door to a spreader or other vehicle outside. Two doors to the barn provide good in/out passage for workers and materials.
This layout (SRL#C2) shows a typical conventional stripping room attached perpendicular to a barn with the small bale press boxes. Three grades require four workers; four grades require five workers with one worker bringing in tobacco, baling and carrying out stalks and bales with possible help periodically from one of the other workers. Bulked tobacco is in the driveways, either bulked on protective material or wagons. Bales are stored nearby on protective material. Stalk removal is through a small door to a spreader or other vehicle outside. Note the potential congestion of workers and products through the one door to the barn.
This layout (SRL#C3) shows a wider conventional stripping room attached parallel to a barn with stripping into burlap sheets. Three grades should have four workers; four grades have five workers with one worker bringing in tobacco and carrying out stalks and possible help periodically from one of the other workers. One worker may have to interrupt stripping to help tie a sheet and carry it outside. Thus, an additional worker to help with tobacco, stalks and sheets could expedite the daily stripping process. Bulked tobacco is in the driveways, either bulked on protective material or wagons/trailers. Filled sheets are stored nearby on protective material close to a big baler. The forklift will assist in moving and lifting the sheets for dumping into the baler as well as moving the big bales into a suitable storage area before market delivery. Stalk removal is through a small door to a spreader or other vehicle outside. Two doors to the barn provide good in/out passage by workers and materials and should be at least four feet wide to accommodate the filled burlap sheets.
This layout (SRL#C4) shows a typical conventional stripping room attached perpendicular to a barn with stripping into burlap sheets. Three grades should have four workers; four grades have five workers with one worker bringing in tobacco and carrying out stalks. One worker may have to interrupt stripping to help tie a sheet and carry it outside. Thus, an additional worker to help with tobacco, stalks and sheets could expedite the daily stripping process. Bulked tobacco is in the driveways, either bulked on protective material or wagons/trailers. Filled sheets are stored nearby on protective material close to a big baler. The forklift will assist in moving and lifting the sheets for dumping into the baler as well as moving the big bales into a suitable storage area before market delivery. Stalk removal is through a small door to a spreader or other vehicle outside. Two doors to the barn provide good in/out passage for workers and materials and should be at least four feet wide to accommodate moving the filled burlap sheets.
This layout (SRL#C5) shows a typical conventional stripping room attached parallel to a barn with stripping into one-worker size containers. Three grades should have four workers; four grades have five workers with one worker bringing in tobacco, dumping tobacco into the baler and carrying out stalks. One worker may have to interrupt stripping to help complete a bale and move it to storage. Thus, an additional worker to help with tobacco, baling and stalks could expedite the daily stripping process. Bulked tobacco is in the driveways, either bulked on protective material or wagons/trailers. Containers of leaves of other grades awaiting baling are stored nearby on protective material, if needed, close to a big baler. The forklift helps move the big bales into a suitable storage area before market delivery. Stalk removal is through a small door to a spreader or other vehicle outside. Two doors to the barn provide good in/out passage for workers and materials.
This layout (SRL#C6) shows a typical conventional stripping room attached perpendicular to a barn with stripping into one-worker size containers. Three grades should have four workers; four grades have five workers with one worker bringing in tobacco, dumping tobacco into the baler and carrying out stalks. One worker may have to interrupt stripping to help complete a bale and move it to storage. Thus, an additional worker to help with tobacco, baling and stalks could expedite the daily stripping process. Bulked tobacco is in the driveways, either bulked on protective material or wagons/trailers. Containers of leaves of other grades awaiting baling are stored nearby (on protective material if not concrete floor) close to a big baler. The forklift will assist in moving the big bales into a suitable storage area before market delivery. Stalk removal is through a small door to a spreader or other vehicle outside. One door to the barn can cause traffic congestion and be a hindrance to smooth passage of workers and materials.
This layout (SRL#B1) shows a larger separate building or space in another building for stripping into containers temporarily and baling internally. A concrete floor is recommended. With the double-sided stripping table, three grades should have seven workers; four grades have nine workers with one worker bringing in tobacco, dumping tobacco into the baler and carrying out stalks. One worker may have to interrupt stripping to help complete a bale and remove it from the baler. Thus, an additional worker to help with tobacco, baling and stalks could expedite the daily stripping process. A wagon or trailer load of bulked tobacco is inside and easily accessible for stripping. Containers of leaves of other grades awaiting baling are stored nearby on protective material, if needed, close to a big baler. The forklift will assist in moving the big bales into a suitable storage area before market delivery. Stalk removal is through a small door to a spreader or other vehicle outside. An adjacent space for bale storage is shown and offers convenient handling of bales in inclement weather. Note the less congested traffic pattern of moving tobacco to the big baler.
This layout (SRL#B2) shows a larger separate building or space in another building for stripping into containers temporarily and baling internally using two balers operating from one hydraulic system. Another space for bale storage is necessary, either adjacent or separate, with a separate space being inconvenient for moving bales in inclement weather. A concrete floor is recommended. With the double-sided stripping table, three grades should have seven workers; four grades have nine workers with one worker bringing in tobacco, dumping tobacco into the baler and carrying out stalks. One worker may have to interrupt stripping to help complete a bale and remove it from the baler. Thus, an additional worker to help with tobacco, baling and stalks could expedite the daily stripping process. Two balers operating on one hydraulic system could expedite the baling. A wagon or trailer load of bulked tobacco is inside and easily accessible for stripping. Containers of leaves of other grades awaiting baling are stored nearby (on protective material if not concrete floor) close to a big baler. The forklift will assist in moving the big bales into a suitable storage area before market delivery. Stalk removal is through a small door to a spreader or other vehicle outside. Note the less congested traffic pattern of moving tobacco to the big balers.
This layout (SRL#B3) shows a separate building or space smaller than the previous layouts in another building for stripping into containers temporarily and baling internally. Another space for bale storage is necessary, either adjacent or separate, with a separate space inconvenient for moving bales in inclement weather. A concrete floor is recommended. With the double-sided stripping table, three grades should have seven workers; four grades have nine workers with one worker bringing in tobacco, dumping tobacco into the baler and carrying out stalks. One worker may have to interrupt stripping to help complete a bale and remove it from the baler. Thus, an additional worker to help with tobacco, baling and stalks could expedite the daily stripping process. A wagon or trailer load of bulked tobacco is inside and easily accessible for stripping. Containers of leaves of other grades awaiting baling are stored nearby (on protective material if not concrete floor), close to a big baler. The forklift will assist in moving the big bales into a suitable storage area before market delivery. Stalk removal is through a small door to a spreader or other vehicle outside. Note the extra distance for moving containers of leaves from the top of the layout to the baler in the lower right corner.
This layout (SRL#B4) shows a separate building or space in another building for stripping into containers temporarily, baling internally and with a conveyor and stalk chopper unit to eliminate carrying out stalks. Electrically operated stalk choppers have been adapted from old stripped-down forage cylinder and feed units by a few producers and are shown in two videos on the BAE Ext. tobacco web site (www.bae.uky.edu/ext/tobacco).

A specially built unit is now under experimental development in the BAE Dept. Another space for bale storage is necessary, either adjacent or separate, with a separate space being inconvenient for moving bales in inclement weather. A concrete floor is recommended. With the double-sided stripping table, three grades should have seven workers; four grades have nine workers with one worker bringing in tobacco, dumping tobacco into the baler and carrying out stalks. One worker may have to interrupt stripping to help complete a bale and remove it from the baler. Thus, an additional worker to help with tobacco, baling and stalks could expedite the daily stripping process. A wagon or trailer load of bulked tobacco is inside and easily accessible for stripping. Containers of leaves of other grades awaiting baling are stored nearby (on protective material if not concrete floor). The forklift will assist in moving the big bales into a suitable storage area before market delivery. Note the longer distance to move containers of leaves from the top of the layout to the bottom right corner for baling which may offset some of the labor savings of the stalk chopper system.
This layout (SRL#B5) shows a separate building or space in another building for stripping into containers temporarily, baling internally and with a conveyer and stalk chopper unit to eliminate carrying out stalks. Electrically operated stalk choppers have been adapted from old stripped-down forage cylinder and feed units by a few producers and are shown in two videos on the BAE Ext. tobacco web site (www.bae.uky.edu/ext/tobacco). A specially built unit is now under experimental development in the BAE Dept. Two balers operating on one hydraulic system could expedite the baling. An external space for bale storage is necessary and could be inconvenient for moving bales in inclement weather. A concrete floor is recommended. The stripping tables are located against an outside wall to reduce the conveyor length into the stalk chopper unit and allow a narrower building. Three grades should have eight workers; four grades have ten workers with the two workers bringing in tobacco, dumping tobacco into the baler and finishing bales. This should keep all workers at the stripping table for maximum productivity. A wagon or trailer load of bulked tobacco is inside and easily accessible for stripping. Containers of leaves of other grades awaiting baling are stored in the stripping space (on protective material if not concrete floor). Note the shorter distance for moving containers of leaves from stripping to baling.
This layout (SRL#B6) shows a separate building or space in another building for stripping into containers temporarily, baling internally and with a conveyor and stalk chopper unit to eliminate carrying out stalks. Electrically operated stalk choppers have been adapted from old stripped-down forage cylinder and feed units by a few producers and are shown in two videos on the BAE Ext. tobacco web site (www.bae.uky.edu/ext/tobacco).

A specially built unit is now under experimental development in the BAE Dept. Another space for bale storage is necessary, either adjacent or separate, with a separate space being inconvenient for moving bales in inclement weather. A concrete floor is recommended. The stripping tables are located against an outside wall to reduce the conveyor length into the stalk chopper unit and allow a narrower building. Three grades should have seven workers; four grades have nine workers with one worker bringing in tobacco, dumping tobacco into the baler and finishing bales. One worker may have to interrupt stripping to help complete a bale and remove it from the baler. Thus, an additional worker to help with tobacco and baling could expedite the daily stripping process. A wagon or trailer load of bulked tobacco is inside and easily accessible for stripping. Containers of leaves of other grades awaiting baling are stored in the stripping space (on protective material if not concrete floor). Note the minimum distance to move containers of leaves from the stripping area to temporary storage and to the baler and the use of a cart to move unstripped tobacco to the far end of the table, thus saving trips carrying tobacco.
This layout (SRL#B7) shows a separate building or space in another building for stripping into containers temporarily and baling internally with one big baler. The stripping table is on rollers (or without rollers) and moved against the end of the wagon to minimize stalk tobacco movement as suggested by Mr. Mike Peters (Farm Mgr., U. Ky. Woodford Co. Research Farm) and a few other producers. Another space for bale storage is necessary, either adjacent or separate, with a separate space being inconvenient for moving bales in inclement weather. A concrete floor is recommended. Three grades should have seven workers; four grades have nine workers with one worker bringing in tobacco and dumping tobacco into the baler. One worker may have to interrupt stripping to help complete a bale and remove it from the baler. Thus, an additional worker to help with tobacco and baling could expedite the daily stripping process. A wagon or trailer load of bulked tobacco is inside and easily accessible for stripping. Containers of leaves of other grades awaiting baling are stored in the stripping space (on protective material if not concrete floor). Note the extra distance to move containers of leaves from the far side of the stripping and temporary storage area to the baler.
This layout (SRL#B8) shows a separate building or space in another building for stripping into containers temporarily and baling internally with one big baler. The stripping table is adjacent to the conveyor feeding the stalk chopper unit with the wagon 'pushed' into the space close to the table to minimize stalk tobacco movement. However, stepping across the tongue could be tiresome and potentially dangerous to stumbling. Otherwise, it is a long distance to walk around (behind) the wagon. Another space for bale storage is necessary, either adjacent or separate, with a separate area being inconvenient for moving bales in inclement weather. A concrete floor is recommended. Three grades should have seven workers; four grades have nine workers with one worker bringing in tobacco and dumping tobacco into the baler. One worker may have to interrupt stripping to help complete a bale and remove it from the baler. Thus, an additional worker to help with tobacco and baling could expedite the daily stripping process.

A wagon or trailer load of bulked tobacco is inside and easily accessible for stripping. Containers of leaves of other grades awaiting baling are stored in the stripping space (on protective material if not concrete floor).
This layout (SRL#B9) shows a Super Stripping Room Layout in a separate building or space in another building two double-sided tables and a stalk chopper unit patterned after the Roberts' Farm operation in Henry Co., Ky. Shown here is stripping into containers for handling to the four balers operating off two hydraulic power units. The stripping table is adjacent to the conveyor feeding the stalk chopper unit. Another space for bale storage is necessary, either adjacent or separate, with a separate area being inconvenient for moving bales in inclement weather. A concrete floor is recommended. Three grades should have seven workers; four grades have nine workers with one worker bringing in tobacco and dumping tobacco into the baler. One worker may have to interrupt stripping to help complete a bale and remove it from the baler. Thus, an additional worker to help with tobacco and baling could expedite the daily stripping process. A wagon or trailer load of bulked tobacco is inside and easily accessible for stripping. Containers of leaves of other grades awaiting baling are stored in the stripping space (on protective material if not concrete floor). Note the rather open and direct movement of tobacco from the stripping area to a baler, although a larger distance from the farthest baler to a far worker stripping a grade, and the tobacco carts for moving unstripped tobacco to the tables with fewer trips and exertion carrying the tobacco.
This layout (SRL#S1) shows a larger separate building or space in another building for stripping into burlap sheets temporarily and baling internally. A concrete floor is recommended. With the single-sided stripping table, three grades should have four workers; four grades have five workers with one worker bringing in tobacco, depositing tobacco from the dominant grade into the baler and carrying out stalks. One worker may have to interrupt stripping to help tie a sheet, move them, complete a bale and remove it from the baler. Thus, an additional worker to help with sheet and tobacco movement, baling and stalk removal could expedite the daily stripping process. The forklift will be needed to lift and dump filled sheets into the baler when making bales of the other grades. A wagon or trailer load of bulked tobacco is inside and easily accessible for stripping.

The sheets should be on protective material if not on concrete. Stalk removal is through a small door to a spreader or other vehicle outside. An adjacent space for bale storage is shown and offers convenient handling of bales for storage and during inclement weather. Such adjacent storage could be added to many of the layouts and buildings.
This layout (SRL#S2) shows a larger separate building or space in another building with dual tables and crews for stripping into burlap sheets temporarily and moving to an adjacent space for storage, baling and bale storage. A concrete floor is recommended. With the two stripping tables, three grades should have seven workers; four grades have nine workers with one worker moving tobacco to the stripping tables, depositing tobacco into the sheets and carrying out stalks. One worker may have to interrupt stripping to help tie and move a sheet. Thus, an additional worker to help with the sheet procedures, tobacco to the table and stalk removal could expedite the daily stripping process. The forklift will be needed to move the sheets to storage as well as lift and dump filled sheets into the baler when making bales. Note the difficulty in getting a tied sheet in the inner area over or around other sheets to a place for forklift access. Moving the lower table against the outer wall could provide more space in the middle area for the filled sheet removal. A wagon or trailer load of bulked tobacco is inside and easily accessible for stripping. The sheets should be on protective material if not on concrete. Stalk removal is through a small door to a spreader or other vehicle outside. Completed bales are stored in the adjacent space or elsewhere.
This layout (SRL#S3) shows a separate building or space in another building for stripping into burlap sheets temporarily with two big balers. Two balers operating on one hydraulic system could expedite the baling. An external space for bale storage is necessary and could be inconvenient for moving bales in inclement weather. A concrete floor is recommended. Three grades should have eight workers; four grades have ten workers with two workers bringing in tobacco, dumping tobacco into the baler or sheets and finishing bales. This should keep all workers at the stripping table for maximum productivity. Large containers are suggested for the workers stripping the two grades going directly into the balers to give maximum capacity per trip to the baler. A wagon or trailer load of bulked tobacco is inside and easily accessible for stripping. Filled sheets of leaves are stored temporarily in the stripping space for subsequent baling. (on protective material if not concrete floor). Stalk removal is through a small door to a spreader or other vehicle outside. Note the intense traffic in the area behind the stripping workers and from the sheets to the balers with limited forklift access.
This layout (SRL#S4) shows a separate building or space in another building for stripping into burlap sheets temporarily with two big balers and a stalk chopper unit to eliminate carrying out stalks. Two balers operating on one hydraulic system could expedite the baling. Another space for bale storage is necessary, either adjacent or separate, with the separate space being inconvenient for moving bales in inclement weather. A concrete floor is recommended. Three grades should have eight workers; four grades have ten workers with two workers bringing in tobacco, dumping tobacco into the baler or sheets and finishing bales. This should keep all workers at the stripping table for maximum productivity. Large containers are suggested for the workers stripping the two grades going directly into the balers to give maximum capacity per trip to the baler. A wagon or trailer load of bulked tobacco is inside and easily accessible for stripping. Filled sheets of leaves are stored temporarily in the stripping space for subsequent baling. (on protective material if not concrete floor). Note the intense traffic in the area behind the stripping workers and from the sheets to the balers where the forklift may be more readily used to assist in moving and dumping sheets.
This layout (SRL#S5) shows a separate building or space in another building for stripping into burlap sheets temporarily with one big baler and a stalk chopper unit to eliminate carrying out stalks. Another space for bale storage is necessary, either adjacent or separate, with a separate area being inconvenient for moving bales in inclement weather. A concrete floor is recommended. Three grades should have seven workers; four grades have nine workers with one worker bringing in tobacco, dumping tobacco into the baler or sheets and finishing bales. One worker will have to interrupt stripping to help tie and move a sheet. Thus, an additional worker to help with the sheet procedures, tobacco to the table and sheet movement could expedite the daily stripping process. Large containers are suggested for the workers stripping the two grades going directly into the balers to give maximum capacity per trip to the baler. A wagon or trailer load of bulked tobacco is inside and easily accessible for stripping. Note the Tobacco Cart to help move more tobacco to the far end of the stripping table with fewer trips and worker exertion. Filled sheets of leaves are stored temporarily in the stripping space for subsequent baling. (on protective material if not concrete floor) and offer ready access by the forklift to assist in moving and dumping into the bale. Note the use of the cart for moving unstripped tobacco to the far end of the table thus reducing worker trips and exertion.
This layout (SRL#S6) shows a separate building or space in another building for stripping into burlap sheets and moving them elsewhere for baling. A concrete floor is recommended. Three grades should have fourteen workers; four grades have eighteen workers with two workers bringing in tobacco, dumping tobacco into the sheets, tying, and then moving them with the forklift. Large containers are suggested for the workers stripping the grades going into the sheets to give maximum capacity per trip. A wagon or trailer load of bulked tobacco is inside and easily accessible for stripping. Note the Tobacco Cart to help move more tobacco to the ends of the stripping tables with fewer trips.
This layout (SRL#S7) shows a Super Stripping Room Layout in a separate building or space in another building with two double-sided tables and stalk chopper unit patterned after the Roberts' Farm operation in Henry Co., Ky. Shown here is stripping into containers to reduce trips to the sheets and to the two big balers. The stripping tables are adjacent to the conveyor feeding the stalk chopper. Another space for bale storage is necessary, either adjacent or separate, with an adjacent space possible at the left end beyond the wagon area. A concrete floor is recommended. Three grades should have fourteen workers; four grades have eighteen or nineteen workers with two workers moving tobacco to the tables on carts, dumping tobacco into the baler and sheets and completing the bales. A wagon or trailer load of bulked tobacco is inside and easily accessible for stripping. Sheets of leaves of other grades awaiting baling are stored in the far side of the stripping space (on protective material if not concrete floor), thus requiring moving them across the floor space to the baler.
Sketch of sealed and insulated building features suitable for tobacco conditioning and stripping.