

The DAIRY

SEPARATORS HAVE MANY ADVANTAGES

It is practically impossible to produce cream of good quality for butter making without a cream separator, say the dairy specialists of Clemson college, who give below some points on the type of machine to buy and some of the advantages of a separator.

In purchasing a separator, the first consideration is to select a standard make, that is, a machine manufactured, sold and guaranteed by a reliable company which makes separators for use rather than for sales purposes. The standard machines are constructed on sound mechanical principles and are made of good material.

When a machine sells for a very low price it is usually because of cheap materials and poor workmanship. These types are short lived, as the materials from which they are constructed are low grade and soon wear enough to cause considerable loss of butterfat in the skim milk. This loss will increase as the use of this type of separator is continued. The loss in butterfat because of poor separation, if saved, would pay the difference in price in a few weeks.

Standard separator companies maintain a service in communities where their separators are in use, and are always glad to keep their machines in good repair and efficient running order. If a farmer is not acquainted with standard makes of separators, he should consult his creamery manager before making a purchase.

The advantages of the centrifugal cream separator over the gravity or hand skimming-separation are as follows:

1. The range of temperature and condition of milk at which the cream can be successfully separated is much greater than that for successful separation by the gravity method.

2. A much better quality of cream can be obtained, as the separation can be done before the milk gets old, while by the hand-skimming method the time required for efficient separation is so long that the cream deteriorates somewhat before it is removed from the milk.

3. As much as one-fourth of the butterfat is often lost by the gravity method, while an efficient cream separator will not lose more than one-hundredth of 1 per cent in the skim milk.

4. The thickness of the cream can be regulated to suit requirements, while by the gravity method the thickest cream that can be obtained is about 20 per cent butterfat. It is best to produce cream testing 35 to 40 per cent butterfat for shipment to the creamery.

5. Many impurities and undesirable germs are removed, while by the gravity method exposure to impure air is likely to contaminate the milk with taints, and promotes the action of undesirable bacteria.

6. The skim milk is left in a more natural condition, thus making it more suitable for feeding purposes.

Alfalfa Compared With Bran for the Dairy Cow

"The hay produced from the average acre of alfalfa in Wisconsin has as much food value for dairy cows as three tons of bran," is the opinion of D. Graber, alfalfa specialist of the Wisconsin College of Agriculture.

That the dairymen are realizing the value of alfalfa is evidenced by the large increase in acreage devoted to alfalfa. In 1923 Wisconsin farmers raised 150,000 acres. The 1924 acreage had increased to 207,000 acres, and the new seedlings last year will bring the acreage to about 400,000 for 1925 season.

The high lime and protein content of alfalfa hay is what makes it valuable as a feed, as these nutrients are low in most home-grown feeds and must be supplied by purchasing expensive concentrates.

In tests conducted by experiment stations, it has been found that where alfalfa has been substituted for bran in the ration a slight increase in milk now has resulted.

Value of Alfalfa Meal

On account of many inquiries with regard to the feeding value of alfalfa meal a test was made at the Central Experimental farm with a group of Ayrshire and Holstein cows. The cows were fed standard rations of corn silage, clover hay and meal, the meal being partly composed of either bran or alfalfa meal. The alfalfa meal in the test did not prove as valuable as a feed for dairy cows as bran, but this depends a good deal on the price paid for each. If the alfalfa meal can be bought at a price some 10 to 15 per cent lower than bran, it may prove more economical.

Fence-Breaking Habit

When cows have once learned the habit of breaking through a fence, it is hard to break them of it. There are two things that you can do and these are first to feed the cows all they will eat and the other is to put more wires on your fence. The wires should be so tight and so close together that the cows cannot get their heads between. On the other hand when cows are fed all they want to eat, they will want to lie down and chew their cud.

Orchard Information

PRUNING CAREFULLY ALWAYS PAYS BEST

Pruning will soon occupy the attention of many fruit growers and questions will arise concerning the best procedure under certain conditions. Horticulturists at the New York state agricultural experiment station at Geneva assert that many orchardists prune too much, without regard to the real need of the trees. It is pointed out that with trees which are well selected when the orchard is set out it is necessary to remove only occasional branches which start out in the wrong place and to remove dead, injured and crossed limbs.

If the trees are bearing small fruits, if the tops contain many dead branches, or if the seasonal growth is short and scant, judicious pruning is recommended as a means of rejuvenation. "This usually consists in cutting back many branches and in entirely removing others," says the station authorities, who lay down the following general rules applicable under such conditions: "Prune weak-growing varieties heavily, strong-growing kinds lightly. Varieties which branch freely need little pruning; those with many unbranched limbs, much pruning. Prune trees in rich, deep soils lightly; in poor, shallow soils heavily."

The cutting back of all the branches of a tree is practiced regularly only with peaches and some plums, it is said. "This is attributed to the fact that, with these fruits, the wood of the past season, and therefore the crop, is borne progressively further away from the trunk, so that it is necessary to head-in these fruits by cutting back the branches in order to keep the bearing wood near the trunk. On the other hand, apples, pears, cherries and most plums are borne on spurs from wood two or more years old and with these heading-in is not so desirable. Experimental evidence obtained in tests on the station grounds indicates that winter pruning has no special advantage over summer pruning, except that the pressure of other work is less."

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Dwarf Apple Tree Unfit for Commercial Orchard

Dwarf apples have no place in commercial orchards in New York when compared with the standard sorts, according to horticulturists at the agricultural experiment station at Geneva. Although the advantages claimed for dwarf trees will appeal to amateur growers, the weaknesses of these miniature trees render them unfit for large plantings.

Due to the fact that the dwarf trees take less space, a greater variety of fruit can be grown in the garden or small orchard than where standard-size trees are grown. Dwarf apples also make attractive ornaments, if properly cared for, and thus add to their usefulness for home planting.

"Dwarf trees are trees which by various means have been made to grow smaller than normal trees of the same variety," say the station horticulturists. "The dwarf trees are just as healthy and vigorous as normal trees and produce fruit of the same size and quality."

"In America, dwarfing is usually accomplished by grafting scions or cuttings from standard varieties on some rootstock which dwarfs the top. It is usually necessary to resort to summer pruning as well to secure true dwarfs. On the station grounds, the standard trees are grown on the so-called French Crab stock, which is widely used in America. Dwarf apples come into bearing slightly earlier than do standard apples, but the difference in this respect is not sufficient to make the dwarf trees any more desirable commercially."

Horticulture Notes

The grapevine needs to be pruned heavily each year to maintain its vigor and production.

Raspberry growing has become increasingly important during the past five or six years.

If you would have fine grapes instead of diseased poorly developed ones, spray with bordeaux.

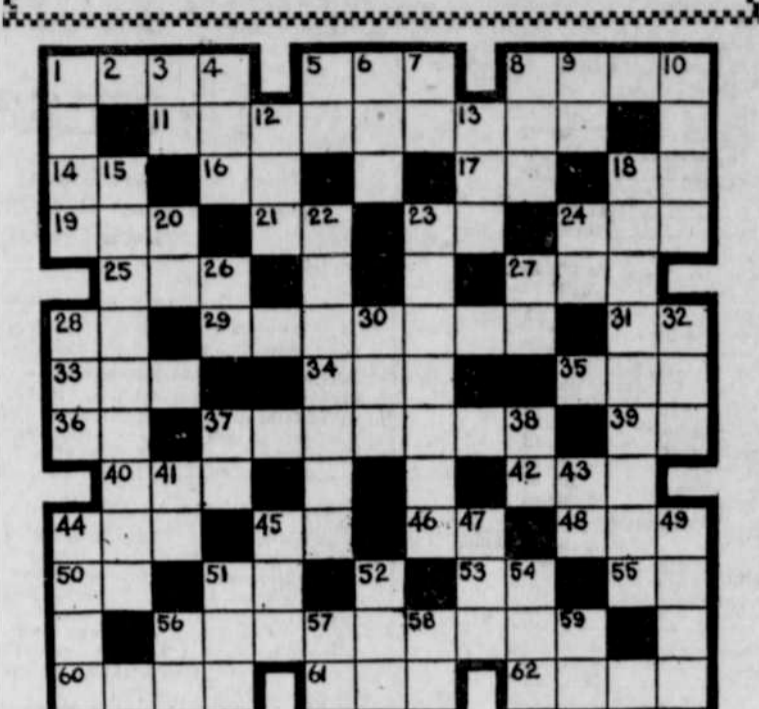
Crabapple trees are ornamental as well as useful. Varieties like Florence and Virginia are useful for jelly and preserves.

When, why and how to spray to prevent the ravages of insects, rusts and blights, varies with weather and other conditions. Your state experiment station publishes free bulletins that will tell you all about it.

Praches should be sprayed as soon as the shucks are being pushed off the young fruit, using a mixture of a pound of arsenate of lead and four pounds of hydrated lime to 50 gallons of water.

In common with all tree fruits, plums do best under tillage. Tillage consists in plowing in the spring, followed by frequent cultivation until August, at which time a cover crop of clover, oats or barley, cowhorn turnips or a combination of some of these should be planted.

CROSS-WORD PUZZLE



- Horizontal.
- 1—To present
 - 5—Of a dull brownish color
 - 8—A Mohammedan poet (first name)
 - 11—A system of medical practice
 - 14—An article
 - 16—The Chinese name for Buddha
 - 17—I am
 - 18—Company (abbrev.)
 - 19—Moved rapidly
 - 21—Part of the verb "to be"
 - 23—Horse power (abbrev.)
 - 24—A plucky or witty saying
 - 25—Too low
 - 27—Salt (chemical)
 - 28—That man
 - 29—A rattlesnake
 - 31—Africa (abbrev.)
 - 33—Request
 - 34—An old Dutch and German measure
 - 35—An African antelope
 - 36—South America
 - 37—Green chalcidony (plural)
 - 39—Doctor
 - 40—An instrument used in a lock
 - 42—Anger
 - 44—To fold and sew up the edge of
 - 45—An addition to a letter
 - 46—Steamship (abbr.)
 - 48—Part of a circle
 - 50—Exists
 - 51—Father
 - 53—A Chinese measure
 - 55—In such a manner
 - 56—A large rodent
 - 60—To slide without rotating
 - 61—A serpent
 - 62—Chews and swallows
- Vertical.
- 1—A toothed wheel or cog wheel
 - 3—A southern state (abbr.)
 - 4—A fairy
 - 5—To perform
 - 6—Opposite of "downs"
 - 7—North America (abbr.)
 - 8—The unit of electrical resistance
 - 9—Belonging to me
 - 10—Part of a plant
 - 12—A tennis ball returned in a high curve
 - 13—To tilt
 - 15—Those who have the same name as others
 - 18—Vessels used as strainers
 - 20—A negative
 - 22—Slight convexity in the shaft of a column
 - 23—Head guards
 - 24—Mother
 - 26—A co-ordinating particle
 - 27—Senior (abbr.)
 - 28—Possesses
 - 30—To rap lightly
 - 32—The skin of certain animals
 - 37—July (abbrev.)
 - 38—A note in the diatonic scale
 - 41—A printers' measure
 - 43—The sun god of ancient Egypt
 - 44—Slaps
 - 45—The established value of the monetary unit.
 - 47—To glide upon the snow
 - 48—Axes of kernels of corn
 - 51—A seed vessel
 - 52—A vehicle
 - 54—A single unit
 - 56—Jumbled type
 - 57—Calcium (symbol)
 - 58—Pianissimo
 - 59—Each (abbr.)

The solution will appear in next issue.

Solution of Last Week's Puzzle.

D	A	T	E	F	I	D	C	O	S	T	
A	B	E	D	O	E	L	A	T	E		
L	E	A	D	O	E	R	O	T	O	S	
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A	I	D	T	R	I	C	E	C	U	D	
G	R	A	N	T	C	N	O	S	E		
E	E	N	E	V	E	N	T	O	E	E	
		A	R	E	F	E	L				
C	L	A	N	N	I	T	O	P	A	L	
L	O	N	G	D	O	T	G	O	R	E	
A	N	T	E	E	W	E	A	K	I	N	
W	E	I	R	D	A	D		N	E	A	T

HOW TO SOLVE A CROSS-WORD PUZZLE

When the correct letters are placed in the white spaces this puzzle will spell words both vertically and horizontally. The first letter in each word is indicated by a number, which refers to the definition listed below the puzzle. Thus No. 1 under the column headed "horizontal" defines a word which will fill the white spaces up to the first black square to the right, and a number under "vertical" defines a word which will fill the white squares to the next black one below. No letters go in the black spaces. All words used are dictionary words, except proper names. Abbreviations, slang, initials, technical terms and obsolete forms are indicated in the definitions.

CRITICISM

IT IS surprising how many things and people one may discover to find fault with if one cultivates the proper frame of mind. It takes neither genius nor unusual intelligence to detect error or to discover imperfections. In fact, I have sometimes thought that the more likely he is to see the shortcomings and the weaknesses of others rather than to be impressed with their admirable qualities. Where one man begins to accuse another of trickery and falsifying have not infrequently had my own suspicions. I have never known a man found guilty of stealing who did think the practice of theft quite common if not universal among his fellows.

Most of the criticism which we hear every day of individuals and of organizations is offered with the mistaken idea that it reveals superior knowledge, a keener intellect, and a better judgment, and a keener insight into human nature than that ordinarily shown. The fellow who criticizes the member of the basketball team who fails in making a basket, or the minister whose sermon is not up to standard, or the government or college official who is not running public or educational affairs to his liking, usually does so in a way to give the impression that he knows a tremendous lot about basketball, or public speaking, or political or college matters, and that if he would only take a hand in any one of these activities he could show the public a thing or two. There is no form of conceit so colossal as that shown by the self-constituted critic.

Most of the criticism we hear is entirely destructive. It preys upon the weaknesses and frailties of human beings, without trying in any way to remedy them. This is eminently true of feminine gossip, which is seldom little more than destructive criticism of the character and conduct of individuals, incidentally for the purpose of making the critic's intellect and character by contrast seem the keener and the more immaculate.

"Well, I'm sure I don't understand how people can act that way," is usu-

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Is recognized by the delicate, fascinating influence of the perfume she uses. A bath with Cuticura Soap and hot water to thoroughly cleanse the pores followed by a dusting with Cuticura Talcum powder usually means a clear, sweet, healthy skin.—Advertisement.

Much in Little

Reading is seeing by proxy.
Luxuries soon blossom into needs.
Nothing spreads so fast by example as laziness.
A little bird on a hat is worth two that tell tales.
Even a perfect companion has his dull moments.
A wise word to the foolish is sometimes sufficient.
A fable is a stem-winding lie with a moral attachment.
An empty purse is responsible for some matrimonial failures.
When each player gets four of a kind it's certainly a great deal.
Matrimonial history often begins where romantic courtship ends.
Be prepared to lighten others' sadness as well as their calamities.
Women are strongest when incased in the armor of their weakness.
Some candidates get there with both feet and others put both feet in it.
When the members of a standing committee meet they usually sit down.
Ability to talk fiction is not necessarily acquired through novel reading.
Fear that each may bore the other never keeps two congenial people apart.
When the eugenists get through maybe it will be safe to give everybody liberty.
Advice is as free as salvation. The one who accepts either has to do all the work.
Much jewelry must be stolen for the fun of it. Such a large quantity is worthless.
We won't accept anything as "art" merely because we can't understand it—poetry or painting.
Any but a weak character resents being forcibly reformed; and usually the weak ones do, too.
Commercial cookery is always trying to reproduce domestic masterpieces and not quite doing it.
No woman is really as handsome as she thinks that some man thinks she is.
The invalid realizes that he is on the high road to recovery when he sees the doctor's bill.
Recent experiments indicate that selenium compounds may prove useful in the eradication of dandelions and plantain from fields and lawns.

What Every Grad Knows

Timely taffy from the Washington Star: "College commencement develops interesting essays on current events. All some of them need is political backing to make them respected and influential expressions of statesmanship."—Boston Transcript.

Good Answer

Bishop William Walter Webb of Wisconsin was asked by a Milwaukee golfer the other day what he thought of Sunday golf.
"I think," Bishop Webb answered, "that if the players don't need a rest, the links do."

What Young Man Will Wear

The Cutter—How did you manage to sell that suit which turned out to be such a terrible misfit?
The Clerk—A young chap thought it was "collegiate."—Youngstown Telegram.

According to Custom

"What ever made you give your girl a diamond engagement ring?"
"She did."

Poe Really in Luck

"Poe sold his Raven poem for \$10."
"Lucky. I only got \$2 for an ode to an elephant."

His Measure of Time

"What did the minister preach about?"
"About ten or twelve hours it seemed to me."

Irritating

"As a great musician, what was your handicap?"
"Listening to gossip while playing sonatas."

Right in His Line

"Is Saphleg really going to marry that old maid?"
"Probably. He's a fiend for antiques."

Rubber Soles Soar

The rise in the cost of rubber has reached the crepe soles of shoes, and the cost of footwear having them is climbing.

Unequal Distribution

Twenty more inches of rain fall every year in the west of England than in the east.

Sad Case

Bunny—So Rabbit's wife left him.
Cottontail—Yes, indeed. Why, after only three months the poor sap ran out of names so half their children didn't get labels at all.



When you greased your car

was it a hard job? Poor grease clogs the passages. It oxidizes, hardens, and fails to lubricate. Grease that does not oxidize and harden—Grease that does not cake and clog the passages—Grease that lubricates properly—is MonaMotor Grease. Stop at the MonaMotor sign and get MonaMotor Grease for the next time. It'll pay you!

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Theater Finds New Use

In China, a theater does not stand idle at any time. During the usual "dark" hours of the day, Chinese merchants engage the various playhouses as a means of getting into closer contact with customers and prospective customers. This custom is particularly true in Shanghai.

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Advertising Wembley

Advertising of Wembley exposition at London last year cost \$600,000 and more than 200,000 press clippings regarding the event were collected.

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