
SpacetoGround

1
00:00:00,179 --> 00:00:04,850
foreign

2
00:00:09,230 --> 00:00:06,950
happy New Year and welcome to space to

3
00:00:10,730 --> 00:00:09,240
ground I'm Chelsea ballarte the

4
00:00:12,770 --> 00:00:10,740
astronauts in orbit celebrated their

5
00:00:15,589 --> 00:00:12,780
holiday season with some much deserved

6
00:00:18,349 --> 00:00:15,599
time off a special holiday meal and

7
00:00:20,750 --> 00:00:18,359
views of the first sunrise over Earth on

8
00:00:22,550 --> 00:00:20,760
New Year's Day out the window but like

9
00:00:24,290 --> 00:00:22,560
many of us here on Earth it was back to

10
00:00:27,950 --> 00:00:24,300
work this week aboard the International

11
00:00:29,570 --> 00:00:27,960
Space Station the focus was science so

12
00:00:31,970 --> 00:00:29,580
we know that space food isn't the most

13
00:00:34,069 --> 00:00:31,980

fresh and we also know that pre-packaged

14
00:00:36,530 --> 00:00:34,079
food has a tendency to lose vitamins and

15
00:00:38,810 --> 00:00:36,540
nutrients over time one experiment

16
00:00:40,369 --> 00:00:38,820
called bionutrients 2 aims to keep the

17
00:00:42,530 --> 00:00:40,379
astronauts healthy on long duration

18
00:00:44,750 --> 00:00:42,540
missions where fresh food is even harder

19
00:00:46,369 --> 00:00:44,760
to get this is an experiment NASA

20
00:00:48,110 --> 00:00:46,379
astronauts are working on all this week

21
00:00:50,090 --> 00:00:48,120
with the goal of producing nutrients

22
00:00:52,250 --> 00:00:50,100
using a process similar to fermenting

23
00:00:55,310 --> 00:00:52,260
food to run this experiment they're

24
00:00:57,830 --> 00:00:55,320
using three things yogurt kefir and a

25
00:01:00,110 --> 00:00:57,840
yeast-based beverage and no it's not

26
00:01:01,549 --> 00:01:00,120
beer in addition to getting their

27
00:01:03,529 --> 00:01:01,559
nutrients through packaged food

28
00:01:06,170 --> 00:01:03,539
astronauts sometimes get to play farmer

29
00:01:08,090 --> 00:01:06,180
and grow nutrient rich to eat

30
00:01:09,710 --> 00:01:08,100
dwarf tomatoes are growing aboard the

31
00:01:11,570 --> 00:01:09,720
International Space Station's veggie

32
00:01:13,310 --> 00:01:11,580
vegetable production system they're

33
00:01:15,230 --> 00:01:13,320
being grown under two different light

34
00:01:17,630 --> 00:01:15,240
sources to study the difference in Fruit

35
00:01:20,090 --> 00:01:17,640
yield nutritional composition and

36
00:01:21,469 --> 00:01:20,100
microbial levels of course astronauts

37
00:01:23,390 --> 00:01:21,479
get to eat their crops when their

38
00:01:25,130 --> 00:01:23,400

experiment is done and they'll be asked

39
00:01:28,010 --> 00:01:25,140
to rate their flavor texture and

40
00:01:29,870 --> 00:01:28,020
juiciness however Harvest time is not

41
00:01:31,490 --> 00:01:29,880
here yet and the astronauts will spend

42
00:01:33,410 --> 00:01:31,500
this week checking on the plants and

43
00:01:35,749 --> 00:01:33,420
watering if necessary

44
00:01:37,990 --> 00:01:35,759
speaking of crops how does microgravity

45
00:01:40,670 --> 00:01:38,000
affect the germination of carrot seeds

46
00:01:42,950 --> 00:01:40,680
quinoa or basil

47
00:01:45,050 --> 00:01:42,960
the researchers hoping to learn more are

48
00:01:47,569 --> 00:01:45,060
actually students and they don't all

49
00:01:49,609 --> 00:01:47,579
revolve around food either there are 26

50
00:01:51,410 --> 00:01:49,619
experiments in all and the students are

51
00:01:53,149 --> 00:01:51,420
as young as fifth graders all the way up

52
00:01:55,190 --> 00:01:53,159
through the college level

53
00:01:57,350 --> 00:01:55,200
NASA astronaut Frank Rubio and Japanese

54
00:01:59,510 --> 00:01:57,360
astronaut koichiwakata will work on

55
00:02:01,310 --> 00:01:59,520
those for the students this week this

56
00:02:03,050 --> 00:02:01,320
research is made possible by the cargo

57
00:02:05,330 --> 00:02:03,060
spacecraft that deliver them to the

58
00:02:07,850 --> 00:02:05,340
space station so the humans in orbit can

59
00:02:09,770 --> 00:02:07,860
begin working on them sometimes these

60
00:02:11,330 --> 00:02:09,780
space Traders can even deliver some

61
00:02:13,130 --> 00:02:11,340
science experiments back to their

62
00:02:16,250 --> 00:02:13,140
researchers on Earth for further

63
00:02:17,990 --> 00:02:16,260

evaluation early next week spacex's 26

64
00:02:19,970 --> 00:02:18,000
cargo resupply Mission will depart the

65
00:02:23,030 --> 00:02:19,980
space station bringing home its onboard

66
00:02:24,650 --> 00:02:23,040
science two days later that's space to

67
00:02:26,390 --> 00:02:24,660
ground for this week thanks for watching

68
00:02:28,850 --> 00:02:26,400
keep up with all of these experiments

69
00:02:30,530 --> 00:02:28,860
and more by following at ISS underscore

70
00:02:33,730 --> 00:02:30,540
Research on Twitter you won't want to